----ENEMALTA DPS IPPC APPLICATION - FORM A----

Consolidated Application Form

0466 – Enemalta DPS IPPC Application

Enemalta plc.
Ing. Fredrick Azzopardi,
Central Administration Offices,
Church Wharf,
Marsa.

Date of Version Issue	*11/10/16*
Report Version number	*Rev 01*

REVISION HISTORY

Version	Revision	Date	Purpose/Status
01	01	11/10/2016	Submission for consultation

Form IPPC Part A – application for a permit, variation, transfer or surrender
For Malta Environment & Planning Authority Use Only

Data received	Fee received: Yes No	Amount received	Name assigned to installation
	☐ ☐		

Application for a permit, variation, transfer or surrender

Integrated Pollution Prevention and Control (IPPC)

Industrial Emissions (IPPC) Regulations 2013

Introduction to Part A

When to use this form

Use this form if you are sending an application to the
MEPA under the Industrial Emissions (IPPC) Regulations, 2013.

The form is to be used for applications made in respect of both 'installations' and 'mobile plant' (and in the rest of the form, the term 'installation' also covers 'mobile plant' where appropriate).

Before you start to fill in this form

There may be two or more operators in a single installation. Each operator will need a permit, each obtained by a separate application. Your applications will principally relate to the part of the installation under your control, but will also need to include some information on the rest of the installation. This will help us to assess the operation of the whole installation. The term "installation", when used in this application form (and elsewhere) may refer to either the whole or part of the installation, depending on the nature of the information we are seeking to obtain.

Which parts of the form to fill in

The form is in five parts but we usually only send you the parts you need to fill in. Everyone has to fill in Part A, and prepare and sign a covering letter at the end of their application.
The other parts you need to fill in depends on the type of application you are making:

- To apply for a new permit – fill in Parts A and B;
- To vary an existing permit – fill in Parts A and C;
- To transfer all or part of an existing permit to

someone else – fill in Parts A and D. This should be a joint application by the transferor and the transferee;

- To surrender all or part of an existing permit – fill in Parts A and E.

Other documents we need to see

There are a number of other documents you will need to send us with your application. Each time a request for documents is made in the application form you will need to record a document reference number for the document or documents that you are submitting in the box provided on the form for this purpose.

Please also mark the document(s) clearly with this reference number and either the application reference number if you know it or your existing permit number. If you do not have either of these, please use the name of the installation.

If you know your Application Reference Number, please enter it into the box below:

Using continuation sheets

In the case of questions required to be answered on the application form itself, please use a continuation sheet if you need extra space; but please indicate clearly on the form that you have done so by stating a document reference number for that continuation sheet. Please also mark the continuation sheet itself clearly with the information referred to above.

Copies

Please submit 1 hard copy and 1 soft copy of the application form and all supporting information.
A soft copy of the application form must also be submitted to the consultees identified in Regulation 19(2) of Legal Notice 10 of 2013. A signed delivery note must be enclosed with the application to MEPA.

If you need help and advice

We have made the application form as straightforward as possible, but please get in touch with us on tel: 2290 7229 or 2290 7231 or email: ippc@mepa.org.mt if you need any advice on how to set out the information we need.

A1 About your application

A1.1 What type of application are you making?

- ❑ new permit
- ✓ variation of an existing permit
- ❑ transfer of an existing permit
- ❑ surrender of an existing permit

A1.2 Name of the installation

Delimara Power Station

Please tell us if this name is:

- ✓ already agreed with the MEPA; or
- ❑ one that you are proposing.

A1.3 Please give the address of the site of the installation, and a map or plan showing the site of the installation and the location of the installation on the site

Street Address	Delimara Power Station	
	Triq il-Power Station	
Locality	Marsaxlokk	Post Code MXK 1220

APPENDIX A: 0466-IPPC-0030

A1.4 Give details of any existing permit(s) for the installation.

Please give details of any applicable waste management licenses, planning permits, environmental permits or sewer discharge permits. Include permit number(s), type(s) and date(s) of issue, and submit copies.

- IPPC Permit No. IP 0002/07/E (01/04/14)
- CCP-ETS-F02.02 - Greenhouse Gas Emission Permit MT-2
- MRA_WHL_PSF_007_09
- PA/05166/93 - Phase IIA Phase IIB Fuel Tanks
- PA/03052/03 - TINA for Malta-Environment & Feasability Studies. Maintenance dredging at Marsaxlokk.
- PA/03152/05 - Proposed local generating capacity at Delimara Power Station
- EA00166/05
- IP0002/07
- PA/03154/08 - Boiler conversion for emission reduction
- PA/02933/09 - Soil investigation at Delimara Power Station Block 4 (through removal of a layer of material).
- PA/04854/09 - To erect new electrical power generating station.
- PA/02053/10 - Boiler conversion for emission reduction at Delimara Power Station
- DN 01054/14 - Demolishing of chimney at Delimara Powerstation.
- PA/00021/14 - Combined cycle gas turbine and liquefied natural gas receiving storage, and re-gasification facilities.
- PA/02298/14 - Demolition and re-location of fire station and laboratory facilities.
- PA/00022/14 - Construction of jetty and ancillary facilities.
- DN 00146/14 - Relocation of cesspit.
- PA/00144/16 - Excavation of basement cable flat and construction of distribution centre at Delimara

A2 Authorised contacts

It will help us to have someone who we can contact directly with any questions about your application. The person you name should have the authority to act on your behalf.

A2.1 Who can we contact about your application? (External Consultant)

This could be an agent rather than the operator.

Name

Perit Peter Zammit

Position

Director

Address

Street Address	Level 4	
	Cobalt House	
	Notabile Road	
Locality	Mriehel	Post Code BKR3000

Phone Number: 21499374
Fax Number: n/a
Email address: peter.zammit@ias.com.mt

A2.2 Who can we contact about your application? (Internal)

This could be an agent rather than the operator.

Name

Ing. Carmen Abela

Position

Regulatory Affairs Office

Address

Street Address	Central Administration Building	
	Church Wharf	
Locality	Marsa	Post Code MRS1000

Phone Number: [redacted]
Fax Number:n/a
Email address: carmen.a.abela@enemalta.com.mt

A2.3 Operational contact

If different to the above, please identify the person we should contact to discuss operational matters on an ongoing basis.

Name

Ing. Ismail D'Amato

Position

Station Manager DPS

Address

Street Address	c/o Delimara Power Station	
	Triq il-Power Station	
Locality	Marsaxlokk	Post Code MXK 1220

Phone Number: [redacted]
Fax Number: n/a
Email address: ismail.damato@enemalta.com.mt

A3 About the operator

Please provide the information requested below about the 'operator', which means:

• for applications for a new permit – the person who it is proposed will have control over the installation in accordance with the permit (if granted),

• for applications for a variation, transfer or surrender – the person who currently has control over the installation in accordance with the permit.

If you are applying for a transfer, we will ask for more information relating to the proposed new operator (transferee) in Part D.

Legal status of operator

A3.1 Is the operator an individual, a group of individuals, a partnership or a company/corporate body?

- ❑ Individual (sole trader) or group of individuals: go to question A3.2.
- ❑ Partnership: go to question A3.3.
- ✓ Company or corporate body: go to question A3.5.

Individual applicants

A3.2 Please give us the following details. Where more than one person is applying (other than as a partnership) we need details of each person.

Continue on separate sheets if necessary.

Full Name

ID Card/Passport No.

Trading/business name (if any)

Business address

Street Address	
Locality		Post Code

Phone Number

Fax Number

Email address

Now go to question A4, What to do next.

Applications from partnerships

A3.3 Who is applying?

We can only issue permits to named individuals, not to a partnership name. We therefore need details of each person in the partnership.

Continue on separate sheets if necessary.

Person

Full Name

ID Card/Passport No.

Principal place of business

Street Address		
Locality		Post Code

Contact Numbers

Phone Number

Fax Number

Email address

Person

Full Name

ID Card/Passport No.

Principal place of business

Street Address		
Locality		Post Code

Contact Numbers

Phone Number

Fax Number

Email address

Person

Full Name

ID Card/Passport No.

Principal place of business

Street Address		
Locality		Post Code

Contact Numbers

Phone Number

Fax Number

Email address

A3.4 Please give us the following details about the partnership.

Name of partnership (if there is one)

Principal place of business

Street Address	

Locality		Post Code

Contact Numbers

Phone Number
Fax Number
Email address

Now go to question A4, What to do next.

Companies or other corporate applicants

A3.5 Please gives us the following details.

Full name of company or corporate body.

Enemalta PLC

Trading/business name (if different)

Registered office address

Street Address	Central Administration building	
	Church Wharf	
Locality	Marsa	Post Code MRS1000

Company registration number

C65836

Date of formation of company

1st July 2014

• For applications from companies, please provide a copy of the certificate of incorporation or registration and any certificates of subsequent name changes.

Document reference number

• For applications from other corporate bodies, please provide evidence of status.

Document reference number

Enemalta Act, Chpter 272, Laws of Malta

A3.6 Is the operator a subsidiary of a holding company?

No ✓

Yes ☐ **name of ultimate holding company**

Registered office address

Street Address		
Locality		Post Code

Principal office address (if different)

Street Address		
Locality		Post Code

Company registration number

A4 What to do next

Now you need to fill in the other Parts of this form available online.

If you are applying for

- ❑ • A new permit – fill in Part B;
- ❑ • A variation – fill in Part C;
- ❑ • A transfer – fill in Part D;
- ❑ • A surrender – fill in Part E.

Legend

- Delimara Power Station - Site Boundary
- ElectroGas Malta (EGM) Designated Area
- Shanghai Electric (SEP) Designated Area

0 2,00m 4,00m 6,00m 8,00m
Scale 1:100

0 1,00m 2,00m 3,00m 4,00m
Scale 1:50

0 0,50m 1,00m 2,00m
Scale 1:25

0 0,40m 1,00m 1,50m
Scale 1:20

enemalta

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Rev.	Date	By	Description
01	09/06/2015	JS	General Revision
02	20/01/2016	JS	Inclusion of PA0014/16
03	10/03/2016	JS	General Revision

Client	ENEMALTA
File Number	0466
Project Location	Delimara Power Station
Drawing Title	DPS - Area Designation
Drawn By	J.Schembri
Checked By	P.Zammit
Scale	1:200, 1:1250
Date	14-05-2015
Drawing Number	0 4 6 6 IPPC 0 0 3 0
Revision	0 3

COMPANIES ACT, 1995

MALTA

CERTIFICATE OF REGISTRATION
LIMITED LIABILITY COMPANY

(PURSUANT TO SECTION 77)

Enemalta p.l.c.

Name of Company

Triq Belt il-Hazna, Marsa MRS 1571, Malta

Registered Office

C 65836

Registration No.

This is to certify that the above-mentioned Company has been registered by the Registrar of Companies as a Limited Liability Company on the

1st July 2014

Date of Registration

Joseph Caruana

Registrar of Companies

Dated this **1st** day of **July** 20 **14**

Malta Resources Authority

Address: 2nd Floor, Millennia, Aldo Moro Road,
Marsa MRS9065, Malta
Telephone: + 356 2295 5100 (General)

MRA
MALTA RESOURCES AUTHORITY

European Union Greenhouse Gas Emissions Trading Scheme
- Greenhouse Gas Emissions Permit -

Permit Reference Number: MT-2

Introductory Note

This Greenhouse Gas Emissions Permit ('Permit') is being issued pursuant to the European Union Greenhouse Gas Emissions Trading Scheme for Stationary Installations Regulations, 2013 (Legal Notice 434 of 2013), transposing Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC..

The Permit authorises the Operator holding the Permit to undertake the activities (as defined in Schedule 1 to Legal Notice 434 of 2013) as indicated in this permit at the specified installation/s, resulting in emissions of the listed greenhouse gases from the specified emission points.

The Permit includes conditions and requirements that must be met in respect of such emissions, including monitoring and reporting requirements and notification requirements. It also contains an obligation for the Operator of the installation/s to surrender allowances equal to the total emissions of specified greenhouse gases from the installation/s in each calendar year within four months following the end of that year. Applicable penalties are set out in the legal notice for infringements of this obligation.

Any correspondence relating to this permit should be referred to:

By e-mail: emissions_trading_scheme@mra.org.mt

Or

By post: Attn. Emissions Trading Scheme
Climate Change Unit
Malta Resources Authority
2nd Floor, Millennia, Aldo Moro Road
Marsa MRS9065, Malta

Definitions

For the purposes of this permit, the definitions in Legal Notice 434 of 2013 shall apply.

In addition, the following definitions shall apply:

"Annual emissions"	means emissions made in a calendar year. For the purposes of condition 4.2, the annual emissions shall be deemed to be increased by: a.) the amount of any annual emissions in respect of which allowances were not surrendered in accordance with condition 4.2 in the previous calendar year; b.) the amount of emissions which are determined as having been unreported in reports submitted in that year and/or previous years.
"Legal Notice 434 of 2013"	means Legal Notice 434 of 2013, European Union Greenhouse Gas Emissions Trading Scheme for Stationary Installations Regulations, 2013, as may be amended.

1. The Permitted Installation(s)

Pursuant to Regulation 4 of Legal Notice 434 of 2013, the Authority issues this Greenhouse Gas Emissions Permit, subject to the conditions specified in the permit, and to any subsequent revisions, amendments or corrections deemed appropriate, to:

Enemalta Corporation
Church Wharf
Marsa MRS 1000
Malta

to carry out the following activity/ies at the installation/s indicated:

DPS	*Delimara Power Station*	*Combustion installation with a rated thermal input exceeding 20MW (except hazardous or municipal waste installations)*
Delimara *Marsaxlokk MXK 1320* *Malta*		

2. Technical Description of the Installation/s

2.1. This Permit authorises the Operator to emit the specified greenhouse gases from the emission points listed in Table 2.1.

Table 2.1.

Installation Reference	Emitting Unit Reference	Emitting Unit Description	Description of Emission Point	Greenhouse Gas
DPS	S1	Heavy Fuel Oil fired Boiler 1 (DPS1A)	Stack (D1A)	CO_2
DPS	S2	Heavy Fuel Oil fired Boiler 2 (DPS1B)	Stack (D1B)	CO_2
DPS	S3	Gasoil fired Open Cycle Gas Turbine 1 (DPS2)	Stack (D2)	CO_2
DPS	S4	Gasoil fired Open Cycle Gas Turbine (DPS3)	Stack (D3)	CO_2
DPS	S5	Gasoil fired Combined Cycle Gas Turbine 3/1 (DPS4)	Bypass Stack[1] (D4A); and, Stack after HRSG unit (D4B)	CO_2
DPS	S6	Gasoil fired Combined Cycle Gas Turbine 3/2 (DPS5)	Bypass Stack (D5A); and, Stack after HRSG[2] unit (D5B)	CO_2
DPS	S7	Heavy Fuel Oil/Gasoil fired Combined Cycle Diesel Engines 1&2 (DPS6A)	Stack (D6A)	CO_2
DPS	S8	Heavy Fuel Oil/Gasoil fired Combined Cycle Diesel Engines 3&4 (DPS6B)	Stack (D6B)	CO_2
DPS	S9	Heavy Fuel Oil/Gasoil fired Combined Cycle Diesel Engines 5&6 (DPS6C)	Stack (D6C)	CO_2
DPS	S10	Heavy Fuel Oil/Gasoil fired Combined Cycle Diesel Engines 7&8 (DPS6D)	Stack (D6D)	CO_2

2.2. The Operator shall ensure that emissions of the specified greenhouse gases shall take place only as set out in this Permit.

[1] Bypass stacks for units DPS4 and DPS5 are used for unit start-ups only.
[2] "HRSG" refers to Heat Recovery Steam Generator.

2.3. This Permit does not put conditions in relation to emissions of gases other than those specified in this Permit.

2.4. This Permit is issued for the purposes of permitting requirements pursuant to Legal Notice 434 of 2013 only. It shall not be construed as removing any obligations and requirements of the Operator under any other legislation or other permit unless specifically so provided by Legal Notice 434 of 2013.

3. Monitoring and Reporting

3.1. Monitoring of emissions of greenhouse gases indicated in section 2 from activities as stipulated in section 1 shall be performed according to the monitoring and reporting plan submitted and approved pursuant to Regulation 15 of Legal Notice 434 of 2013, and in accordance with the requirements set out in the same Regulation.

3.2. Reporting of annual emissions of greenhouse gases from activities as stipulated in section 2 above shall be carried out in accordance with Regulation 16 of Legal Notice 434 of 2013.

3.3. The Operator shall submit a report of the annual emissions for each of the greenhouse gases listed in Table 2.1 in respect of a calendar year, no later than 31st March of the following year. The first report shall be submitted by 31st March of the year following the year during which the installation/s covered by this permit was/were deemed to fall within the scope of Legal Notice 434 of 2013, and shall be submitted in respect of the calendar year during which the installation/s was/were deemed to fall within the scope of Legal Notice 434 of 2013.

3.4. The Operator shall ensure that an annual emissions report submitted under Condition 3.3 has been verified by a Verifier appointed by the Operator. Verification of a report shall be carried out in accordance with Regulation 16 of Legal Notice 434 of 2013. The Operator shall make available to the Verifier any information and data relating to emissions of the specified greenhouse gases which the Verifier may require in order to verify the report to be submitted under condition 3.3. The Operator shall notify the Verifier's conclusions to the Authority at the same time as submitting the report.

4. Allowances

4.1. The Operator shall, by 30th April of each year at the latest, surrender a number of allowances equal to the annual emissions of the greenhouse gases specified in Table 2.1 in the preceding calendar year, as monitored, reported and verified in accordance with section 3. The first such surrender of allowances shall be made by 30th April of the year following the year during which the installation/s covered by this permit was/were deemed to fall within the scope of Legal Notice 434 of 2013, and shall be in respect of emissions occurring during the whole calendar year during which the installation/s was/were deemed to fall within the scope of Legal Notice 434 of 2013.

4.2. With regards to activities or parts of activities which have ceased to take place during the previous year, and which have been duly notified to the Authority, the Operator shall surrender allowances equal to the annual emissions of the relevant greenhouse gases from such activities in the preceding calendar year or part thereof. The total allowances surrendered shall also include such allowances as may be necessary to

cover emissions outstanding or due pursuant to Legal Notice 434 of 2013 in any earlier calendar years.

4.3. The holding, transfer and cancellation of allowances by the Operator shall be in accordance with any applicable provisions and, or any requirements of the European Union and/or national legislation relating to the establishment of a Union Registry pursuant to Directive 2003/87/EC and any other guidance issued by the Authority or the National Registry Administrator.

5. Notifications

5.1. The Operator shall notify the Authority in writing of:

a) any changes planned in the nature or function of the installation/s;

b) any extension or reduction of the capacity of the installation/s;

c) in the case of a permit covering more than one installation, any instance where one or more of the installations cease carrying out all of the activities listed under section 1, but the operator continues to carry out at least one activity in one installation.

Such a notification shall be made by not later than 120 days prior to such a change effectively taking place.

5.2. The Operator shall notify the Authority in writing of any change in the name of the Operator by not later than 60 days prior to such a change effectively taking place.

5.3. The Operator shall notify the Authority immediately on becoming aware of any factor that has prevented or may prevent compliance with any of the conditions of this permit. Details of the factor and why compliance has been or may be prevented shall be provided.

6. Inspections

6.1. The Authority may, from time to time, carry out any inspections it deems appropriate to ensure that the operator is abiding by all the conditions set out in this permit and all the provisions set out in relevant legislation and any other guidance issued by the Authority.

6.2. Inspectors of the Authority shall, at any time during which the plant is operating and at any other reasonable time, be allowed to inspect all operations and documentation deemed necessary to ensure compliance with the conditions set out in this permit and all the provisions set out in relevant legislation and any other guidance issued by the Authority.

7. Penalties

7.1 In the event that the Operator fails to abide by monitoring and reporting obligations se set out in section 3, he may be held liable for the payment of an administrative fine as provided for under Regulation 18 of Legal Notice 434 of 2013.

7.2 In the event that the Operator fails to surrender allowances in accordance with conditions set out in section 4, he shall be held liable to the payment of an excess emissions penalty as provided under Regulation 19 of Legal Notice 434 of 2013. In addition to the payment of the excess emissions penalty, the Operator shall also have to surrender an amount of allowances equal to those excess emissions in respect of which an excess emissions penalty was paid.

8. Transfer, Surrender and Revocation of this Permit.

8.1 This Permit may be transferred in accordance with the rules set out in Regulation 8 of Legal Notice 434 of 2013.

8.2 This Permit may be surrendered in accordance with the rules set out in Regulation 9 of Legal Notice 434 of 2013.

8.3 This Permit may be revoked by the Authority in accordance with the rules set out in Regulation 10 of Legal Notice 434 of 2013.

Signature of authorised person issuing permit:

Name of authorised person issuing permit:

Ing. Anthony Rizzo

Position of authorised person within competent authority:

Chief Executive Officer

Date of issue of permit:

27-Jan-2014

Authority Stamp:

Permit with introductory note

Industrial Emissions (Integrated Pollution Prevention and Control) Regulations, LN 10 of 2013.

Delimara Power Station
Enemalta Corporation,
Delimara,
Marsaxlokk,
MXK 1320

Permit number
IP 0002/07/E

Contents

Introductory note

This introductory note does not form part of the Permit

The following Permit is issued under Regulation 7 of the Industrial Emissions (Framework) Regulations, 2013 (LN 9 of 2013) ("the Industrial Emissions (Framework) Regulations") to operate an installation carrying out activities covered by the description in Section 1.1 in Schedule 1 of the Industrial Emissions (IPPC) Regulations (LN 10 of 2013), to the extent authorised by the Permit, i.e.

> **"Combustion of fuels in installations with a rated thermal input of 50 MW or more".**

Aspects of the operation of the installation which are not specifically regulated by conditions in the Permit may also be subject to the condition implied by Regulation 8 of the Industrial Emissions (IPPC) Regulations, which require the Operator to use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, managed, operated and decommissioned.

In some sections, the Permit conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. These conditions do not explain what is BAT.

A non-technical description of the installation is given in the application, but the main activity of the installation is as follows:

- **Generation of electrical energy through the combustion of heavy fuel oil (HFO) and gasoil.**

Note that the Permit requires the submission of certain information to the Competent Authority (see sections 1, 2, 4 and 5). In addition, the Competent Authority has the power to seek further information at any time under regulation 11 of the Industrial Emissions (Framework) Regulations, provided that it acts reasonably.

Other IPPC Permits relating to this installation		
Permit holder	**Permit Number**	**Date of Issue**
Not applicable		

Superseded Licences/Authorisations/Consents relating to this installation		
Holder	**Reference Number**	**Date of Issue**
Enemalta Corporation	IP 0002/07/A	29 March 2010
Enemalta Corporation	IP 0002/07/B	6 December 2011
Enemalta Corporation	IP 0002/07/C	23 July 2012
Enemalta Corporation	IP 0002/07/D	17 September 2013

Public Registers

This IPPC Permit and application is available to the public through the Competent Authority in accordance with the requirements of the Industrial Emissions (IPPC) Regulations. The applicant has made a request for certain information of a commercial nature to be withheld from the public. MEPA has been supplied with all this information and has accepted the request of the applicant, because it was deemed to be commercially confidential. Alternative text which provides relevant information but does not include the confidential information, has however been included in the application.

Variations to the Permit

This Permit may be varied at any time in the future (by the Authority serving a Variation Notice on the Operator). If the Operator himself wants any of the Conditions of the

Permit to be changed, a formal application must be submitted to the Competent Authority. The **Status Log** within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an Application to surrender the Permit has to be made to the Competent Authority by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Competent Authority that there is no pollution and/or public health risk and that no further steps are required to return the site to a satisfactory state.

Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made to the Competent Authority, by the existing and proposed holders jointly. A transfer will be allowed unless the Authority considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit. If, however, the Permit authorises the carrying out of a specified waste management activity, the transfer will only be allowed if the proposed holder is also considered to be a technically competent person.

Status Log

Detail	Date	Comment
Application IP 0002/07	*Received* 05 February 2007	Not 'duly made'
Response to request for information	*Request dated* 16 June 2007	*Response dated* July 2007
Report on boiler conversion for emission reduction	*PDS submitted 24 April 2008*	*Request for further information dated 14 July 2008.* *Further information submitted 24 September 2008*
Noise survey	*Report submitted 25 July 2008*	
Application 'duly made'	27 April 2009	
Response to request for information	*Request dated 27 April 2009*	*Response received 18 May 2009* *Consolidated version received 18 May 2009*
Public consultation	*Commenced on 21 May 2009*	*Concluded on 20 June 2009*
Re-classification of the phase 1 boilers (from 380 to 332 MW_{TH})	*Official letter dated* 28 September 2009 *plus supporting documents.*	
Permit determined	01 October 2009	
Permit issued	29 March 2010	
Application for variation of permit to include diesel engines	Application received on 11 February 2010	
Response to request for information	Request dated 19 April 2010	Response received 31 May 2010, 17 June 2010 and 26 July 2010
Response to request for	Request dated 17	Response received 12 May

Detail	Date	Comment
information	September 2010	and 2 June 2011
Response to request for information regarding Nox emissions	Request dated 24 June 2011	Response received 4 July 2011
Response to request for information regarding socio-economic assessment	Requests dated 24 June, 4 July and 18 July 2011	Response received on 4 August 2011
Response to request for information	Request dated 5 July 2011	Response received on 22 July, 27 July 2011.
Correspondence regarding flue gas voume calculations	Information submitted by Enemalta on 30 June, 8 and 29 July 2011 and 29 August 2011	Request accepted on 4 August 2011
Request for variations to existing permit	Received on 29 July 2011	
Request for consolidated application	Request made on 26 July 2011	Consolidated application received on 17 August (draft) and 23 August 2011 (final)
Air dispersion model	Report submitted on 24 August 2011	
Updated cooling water dispersion modelling study	Received on 7 September 2011	
Public consultation	Started on 24 August 2011	Concluded on 7 October 2011
Renewal and variation determined	5 December 2011	
Permit issued	6 December 2011	Permit expires on 6 December 2015 A consolidated permit is being issued
Public consultation on proposed extension to condition 2.2.1.7.9from September 2012 to June 2013	Started on 17 May 2012	Concluded on 18 June 2012
Variation determined	12 July 2012	
Permit issued	23 July 2012	Permit expires on 6 December 2015 A consolidated permit is being issued
Public consultation on proposed extension for HFO use from June 2013 to March 2013	Started on 28 June 2013	Concluded on 28 July 2013
Variation determined	5 September 2013	
Permit Issued	17 September 2013	Permit expires on 6 December 2015 A consolidated permit is being issued
Public consultation on the determination of the choice of fuel for DPS6	Started on 11 February 2014	Concluded on 12 March 2014

Detail	Date	Comment
Variation determined	27 March 2014	
Permit issued	1 April 2104	Permit expires on 6 December 2015. A consolidated permit is being issued.

End of Introductory Note

Permit

Industrial Emissions (Integrated Pollution Prevention and Control) Regulations (LN 10 of 2013)

Permit number
IP 0002/07/E

The Malta Environment and Planning Authority (hereinafter the Authority; the Competent Authority or MEPA) in exercise of its powers under Regulation 7 of the Industrial Emissions (Framework) Regulations, 2013 (LN 9 of 2013) ("the Industrial Emissions (Framework) Regulations"), hereby authorises:

Enemalta Corporation (hereinafter "the Operator" or "the Permit Holder"),
Of / Whose Registered Office (or principal place of business) is at
Church Wharf, Marsa MRS 1000

to operate an installation at
Delimara Power Station, Delimara, Marsaxlokk, MXK 1320

to the extent authorised by and subject to the conditions of this Permit.

Approval Stamp

Conditions

1 General

These permit conditions shall be read in conjunction with the IPPC Application received on 02 February 2007, as subsequently clarified and recorded in the status log above, which forms an integral part of these permit conditions.

The operator shall undertake all necessary measures and precautions to prevent adverse health risks as identified by the Environmental Health Directorate. If requested the operator has to provide evidence of mitigating measures or removal of any possible public health risks.

1.1 Permitted Activities

1.1.1 The Operator is authorised to carry out the activities and the associated activities specified in Table 1.1.1.

Table 1.1.1

Activity listed in Schedule 1 of the Industrial Emissions (IPPC) Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 1.1: Combustion installations with a rated thermal input exceeding 50 MW	Generation of electrical energy through the combustion of heavy fuel oil and gasoil. Installation consists of two boilers making up DPS1 (phase 1A and phase 1B), two open cycle gas turbines (DPS2 and DPS3), two combined cycle gas turbines (DPS4 and DPS5) and eight medium-speed combined cycle diesel engines (DPS6).	From receipt of fuel to delivery of utility.
Associated activity of fuel handling and storage	Handling and storage of heavy fuel oil and gas oil.	From receipt of the fuel to combustion in the combustion plant.
Associated activity of utilities	Sea water pre-treatment plant.	From intake of sea water to delivery of utility.
Associated activity of storage, treatment and disposal/recycling of waste materials	Handling, storage, treatment and disposal/recovery of wastes from installation.	From generation of waste to disposal or recycling onsite or offsite.
Associated activity of maintenance	Maintenance carried out in any workshop in the installation.	From maintenance activity to appropriate recovery/ disposal of any wastes created.

1.2 Site

1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the Site, as outlined in red on the Site Plan in Schedule 9 to this Permit.

1.3 Information to the public

1.3.1 The operator shall make emission data (most recent hourly, daily, diurnal and monthly average values and results of the most recent discontinuous measurement) publicly available via the Internet not later than 24 hours after the production of such data.

1.3.2 The Local Councils most affected by emissions from the Delimara Power Station including Birżebbuġa, Marsaxlokk and Żejtun may jointly and in agreement with both the Authority and the operator, establish independent ambient air monitoring systems to monitor for levels of particulate matter, nitrogen oxides, sulphur dioxide, carbon monoxide, as well as any other parameters that may be agreed with the Authority at the expense of the Operator.

1.3.3 The Local Councils most affected by emissions from the Delimara Power Station including Birżebbuġa, Marsaxlokk and Żejtun may jointly and in agreement with the Authority, jointly appoint an independent expert to assist in the interpretation of the emission data made publicly available pursuant to condition 1.3.1.

1.4 Overarching Management Conditions

1.4.1 Without prejudice to the other conditions of this Permit, the Operator shall implement and maintain an Environmental Management System (EMS), and an organisational structure, and allocate resources that are sufficient to achieve compliance with the limits and conditions of this Permit. The EMS can take the form of a standardised system (e.g. EN ISO 14001:1996 or EMAS) or a non-standardised ("customised") system, provided that is properly designed and implemented. The EMS shall give information on the person responsible for environmental management on site, and standard operating procedures on environmentally relevant matters including contingency plan.

1.4.2 As part of the EMS, the Permit Holder shall submit the following reports annually as part of the AER of the site:

1.3.2.1 Environmental Policy containing the installation's environmental objectives and targets;

1.3.2.2 Environmental Management Programme report (for the reporting year);

1.3.2.3 Environmental Management Programme proposal (for the following year);

1.4.3 The Permitted Installation shall, subject to the conditions of this Permit, be managed, controlled and operated as described in the application and subsequent responses to requests for information submitted as per the Status Log above, or as otherwise agreed in writing by the Authority.

1.4.4 All plant, equipment and technical means used in operating the Permitted Installation shall be maintained in good operating condition.

1.4.5 The Permitted Installation shall be managed, controlled and operated by staff suitably trained and fully conversant with the requirements of this Permit.

1.4.6 The Operator shall ensure that no development and/or consequent operation of the plant would impede further development for use of natural gas, both supplied through pipeline or in liquid form, as major fuel for use in electricity generation.

1.5 Improvement Programme

1.5.1 The Operator shall complete the improvements specified in Table 1.5.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Authority within 10 working days of the completion of each such requirement.

Table 1.5.1: Improvement programme

Reference*	Requirement	Date
4	Submission of Outline Decommissioning Plan and land monitoring data, as per Conditions 2.16.1 and 2.16.3.	To be submitted by 15 December 2011.
5	External audit of the safety report.	To be submitted by end September 2012.
8	Fitting of high liquid level alarms on all fuel tanks, and high-high liquid level alarms with automatic shutdown on fuel tanks used for internal fuel transfer.	By 30 June 2012.
12	Submission of a land and groundwater monitoring proposal in conformity with Articles 16(2) and 22 of the Industrial Emissions Directive, 2010/75/EU.	To be submitted by end January 2013.
13	Submission of standard operating procedures indicating actions to be taken in case of failure or breakdown of abatement systems (e.g. FGD, bag filter, SCR system, effluent treatment plant, oily water treatment plant). The procedure shall include operation of DPS6 on diesel in case of failure of the FGD or bag filter systems.	To be submitted by end September 2012.
14	Submission of certification of rated thermal efficiency for the diesel engines.	To be submitted within one month of conclusion of commissioning of the diesel engines.
15	Submission of the following documentation regarding the conversion of the plant to gas: (a) Feasibility study regarding conversion of DPS to various fuel options (namely LNG, CNG and Natural Gas) (b) Risk assessment (c) Infrastructural requirements regarding conversion of DPS to various fuel options (namely LNG, CNG and Natural Gas), including siting, and conversion of existing plant (DPS1-6) (d) Information regarding proposed fuel gas leak detection systems (e) Material safety data sheet for gas fuel proposed.	(a) and (c) to be submitted by end December 2012. (b), (d) and (e) to be submitted by end June 2013.

Table 1.5.1: Improvement programme		
Reference*	**Requirement**	**Date**
16	Installation of appropriate abatement to the satisfaction of the Authority to mitigate odours from existing fuel tanks.	By end October 2012.
17	Submission of proposals regarding methodology for marine ecological surveys.	By end May 2012.
18	Installation of continuous hydrocarbon detector at oil interceptors 2 & 4.	By end April 2012.
19	Submission of a study on infrastructural requirements, feasibility and environmental risks of marine transport of flue gas desulphurisation waste both to Malta Freeport and direct export from DPS.	By end March 2012.
20	Updates to the air dispersion modelling study carried out by the Authority as per condition 2.2.1.13.	Proposed methodology to be submitted by end January 2013. First update to the study shall be submitted by end June 2013. Second update to the study shall be submitted by end June 2014.

* Requirements 4-8 refer to requirements present in IP 0002/07/A (modified as required); requirements 12 onwards are new in IP 0002/07/B.

1.6 Operational Changes

1.6.1 The Operator shall seek the Authority's written agreement to any operational change as defined by LN 10 of 2013 and its amendments, by sending to the Authority: written notice of the details of the proposed change, including an assessment of its possible effects (including changes in emissions and waste production) on risks to the environment and public health from the Permitted Installation; any relevant supporting assessments and drawings; and the proposed implementation date.

1.6.2 Any such change shall not be implemented until agreed to in writing by the Authority. As from the agreed implementation date, the Operator shall operate the Permitted Installation in accordance with that change, and relevant provisions in the Application shall be deemed to be amended.

1.7 Pre-Operational Conditions

1.7.1 There are no pre-operational conditions.

1.8 Off-site Conditions

1.8.1 The Permit holder shall ensure that no chemicals or waste escape to the environment especially when transporting such materials offsite or onsite.

1.8.2 Transport of flue gas desulphurisation waste shall follow the route identified in the Traffic Impact Statement submitted in the IPPC application. However, the Authority may require marine transport of such

waste, depending on the outcome of the study on infrastructural requirements, feasibility and environmental risks of marine transport submitted as per Table 1.5.1 (reference 19).

1.8.3 Without prejudice to condition 1.8.2, should a change in the land route be proposed, the Permit holder is required to submit an updated Traffic Impact Statement to enable assessment of the request. In addition, once a land transport contractor has been identified, the operator shall have in place a spill response plan for use by transport operators in case of spillages during flue gas desulphurisation waste transfer.

2 Operating Conditions

2.1 In-Process Controls

2.1.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the IPPC application, or as otherwise agreed in writing by the Authority in accordance with conditions 1.6.1 and 1.6.2 of this Permit.

2.2 Emissions to Air

2.2.1 Emissions to Air (excluding Odour, Noise or Vibration) from Specified Points: General Considerations

2.2.1.1 Waste gases from the combustion plants within the Delimara Power Station shall be discharged in a controlled manner by means of a stack.

2.2.1.2 A release from the Authorised Process into the atmosphere shall arise only from a release point specified in Table 2.2.1, which shall arise only from the source for that release specified in that Table.

Table 2.2.1 Emission points to air

Release Point	Source	Total Thermal Rating	UTM Co-ordinates[1]	
		MW_{TH}	x-coordinates	y-coordinates
Chimney D1	DPS1 (Boilers phase 1A and phase 1B)	332	460,038	3,965,822
Chimney D2	DPS2 (OCGT1)	121	459,869	3,965,745
Chimney D3	DPS3 (OCGT2)	121	459,881	3,965,727
Chimney D4A	DPS4 (CCGT3 By-pass stack)	121	460,088	3,965,766
Chimney D4B	DPS4 (CCGT3 Main Stack)		460,072	3,965,789
Chimney D5A	DPS5 (CCGT4 By-pass stack)	121	460,037	3,965,731
Chimney D5B	DPS5 (CCGT4 Main Stack)		460,021	3,965,754
Chimney D6A	DPS6 (Diesel engines 1 & 2)	77	460,137	3,965,687
Chimney D6B	DPS6 (Diesel engines 3 & 4)	77	460,134	3,965,685
Chimney D6C	DPS6 (Diesel engines 5 & 6)	77	460,104	3,965,663
Chimney D6D	DPS6 (Diesel engines 7 & 8)	77	460,101	3,965,661

2.2.1.3 Boilers constituting DPS1 shall fire only HFO (Heavy Fuel Oil) in the Authorised Process in accordance with the Application.

2.2.1.4 Unless the boilers making up the plant DPS1 are fitted with a flue gas desulphurisation plant, the sulphur content of the fuel fed to the boilers

[1] Zone 33s, datum ED 50, ellipsoid – Hayford International.

constituting this plant shall in no case exceed that value which will allow the plant to achieve the limit value specified in this permit. Upon purchase of fuel, a copy of the buying specifications must be supplied to the Authority, and prior to delivery of fuel, fuel certificates must be supplied to the Authority for verification of the sulphur content. In case it results that the emissions of sulphur dioxide from DPS1 will exceed this limit value, the competent authority reserves the right to lower the maximum sulphur content of the HFO fired by this plant.

2.2.1.5 Gas Turbines DPS2, DPS3, DPS4 and DPS5 shall fire only gasoil in the Authorised Process in accordance with the Application. The gasoil used shall comply with the standards laid down by the Quality of Fuels Regulations (L.N. 44of 2008 as may be amended from time to time), i.e. the sulphur content of the gas oil fired by gas turbines DPS2, DPS3, DPS4 and DPS5 shall in no case exceed 1 kg for every tonne of gas oil.

2.2.1.6 Diesel engines constituting DPS6 may fire either HFO or gasoil. If HFO is used, the sulphur content fed shall in no case exceed 10 kg for every tonne of heavy fuel oil. If gasoil is used, the sulphur content shall be as specified in condition 2.2.1.5.

2.2.1.7 If the operator opts to use HFO in DPS6 the following conditions shall apply over and above any other condition in the permit:

2.2.1.7.1 A Monitoring Committee shall be set up, which shall be chaired by the Director of Environment Protection, one representative of Enemalta Corporation, and one representative and technical advisor from each of the local councils of Birżebbuġa and Marsaxlokk. Each member, including the Chairman, shall have one vote.

2.2.1.7.2 The Committee shall meet at least once every month. Any member of the Committee may request the Chairman to convene any other meetings of the Committee and the Chairman shall convene such a meeting within 7 days from such a request.

2.2.1.7.3 The air quality data referred to in condition 2.2.1.14 shall be supplied by the Authority to the consultant every two weeks (by not later than two weeks after the last sampling date in each two week period) and published on the operator's website.

2.2.1.7.4 The operator shall, immediately and at all times, abide by any instructions, orders and directives given to him by the Authority.

2.2.1.8 The operator shall determine the mass of each fuel fired in the Authorised Process for each Reporting Year and report this as part of the AER.

2.2.1.9 The operator shall obtain certificates of analysis for one representative composite sample of HFO per delivery for the parameters listed in table 2.2.1.1. In addition, if the flue gas volume from DPS6 is calculated rather than measured, the parameters listed in table 2.2.1.2 shall be measured in one representative composite sample of each fuel delivery intended for use in the diesel engines. The analyses shall be carried out by a lab accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025:2005/Cor 1:2006 and preferably for each and every test listed in table 2.2.1.1.

2.2.1.10 Physical parameters in table 2.2.1.1 shall be measured using EN, EN ISO or ISO standard methods or equivalent.

2.2.1.11 The chemical parameters in tables 2.2.1.1 and 2.2.1.2 shall be analysed to the relevant standards (or equivalent) as specified by the said table. The methods for analysis of the parameters in table 2.2.1.2 shall have a precision suitable for the accurate calculation of flue gas volume. If a suitable method for analysis of any of the parameters in table 2.2.1.2 is not available, calculation of flue gas volume from DPS6 is not authorised; in such cases, flue gas volume shall be measured.

Table 2.2.1.1 Standards for the analysis of physical and chemical parameters

Physical Parameters		
Parameter	**Unit**	**Standard**
Density	$kg.m^{-3}$	ISO 12185 or ISO 3675 or equivalent
Flash point	℃	EN ISO 2719:2002 or equivalent
Heat Value (Upper and Lower)	$MJ.kg^{-1}$	ASTM D4868-00 (2005) or equivalent
Pour Point	℃	ISO 3016:1994 or equivalent
Viscosity	cSt	EN ISO 3104:1996 or equivalent
Chemical Parameters		
Parameter	**Unit**	**Standard**
Ash content	%	ISO 12185, ISO 3675 or equivalent
Nickel content	ppm	EN 13131:2000 or equivalent
Sulphur Content	$mg\ S.kg^{-1}$	EN ISO 8754:2003 or equivalent
Vanadium content	ppm	EN 13131:2000 or equivalent
Water content	%	ISO 3733, ASTM D95 or equivalent

Table 2.2.1.2 Standards for the analysis of chemical parameters for flow rate calculation

Parameter	**Unit**	**Standard**
Sulphur Content	$mg\ S.kg^{-1}$	EN ISO 8754:2003 or equivalent
Carbon content	% by weight	ASTM D5291 or equivalent EN or ISO
Hydrogen content	% by weight	ASTM D5291 or equivalent EN or ISO
Nitrogen content	% by weight	ASTM D3228 or equivalent EN or ISO
Oxygen content	% by weight	EN, ISO or equivalent

2.2.1.12 At the end of every year, the operator shall forward to the Authority a copy of all the certificates of analysis for every representative composite sample throughout the year as part of the AER, except where these have already been submitted to the Authority.

2.2.1.13 The operator shall update the dispersion modelling study carried out by the Authority twice, using the data from the plant's air emissions monitoring

systems, and ambient air monitoring data from Żejtun, Birżebbuġa and Marsaxlokk (including the data collected as required by 2.2.1.14). The updated studies shall assess the dispersion of NO_2, PM_{10} and $PM_{2.5}$, arsenic, cadmium, nickel, lead and vanadium and shall estimate the likelihood of there being any exceedances of the relevant limits laid down by LN 478 of 2010, especially but not limited to the most sensitive receptor(s) in the prevailing wind direction within a 15 km radius. The operator shall submit to the Authority a proposed methodology for this study, which shall be to the Authority's satisfaction.

2.2.1.13.1 The first updated study shall include an assessment of the impact from the operation of the diesel engines.

2.2.1.13.2 The second updated study shall include an assessment of the impact of closure of the boilers at Marsa Power Station and operation of the interconnector.

2.2.1.14 Starting in the first half of January 2012, the operator shall assess air quality in Marsaxlokk by carrying out daily monitoring of PM_{10} and $PM_{2.5}$ at a location in Marsaxlokk to be agreed with the Authority, in accordance with the standards specified in LN 478 of 2010. Monitoring shall be carried out under representative conditions. Any meteorological data utilised by the consultant shall be generated *in situ.* The operator shall also monitor for arsenic, cadmium, nickel, lead and vanadium on a quarterly basis. The results of such monitoring shall be submitted as part of the Monthly and Annual Environmental Reports, in the formats specified in Schedule 4 and Schedule 2 respectively.

2.2.1.15 In order to ensure compliance with LN 478 of 2010, the Authority reserves the right to impose any additional conditions it deems necessary on the Operator.

2.2.1.16 The Authority shall be notified by the Operator of substantial changes in the type of fuel used or in the mode of operation of the installation. The Authority shall then determine whether the monitoring requirements laid down in condition 2.2 are still adequate or require adaptation.

2.2.1.17 Without prejudice to conditions 2.2.2.2, 2.2.3.2 and 2.2.4.2, the boilers constituting DPS1, the gas turbines DPS2, DPS3, DPS4 and DPS5 and the diesel engines constituting DPS6 shall be operated so as to give a smoke colour less than or equal to shade number 1 on the Ringelmann chart (see Schedule 5) except during periods of start up, and soot blowing. The incidence of this colour being exceeded during normal operations (i.e. excluding startups and soot blowing), shall be cumulatively less than 60 minutes in any 24 hour period from the whole installation.

2.2.1.18 The operator shall make sure that the frequency of, soot blowing and malfunctions, is minimised as far as is technically possible.

2.2.1.19 The operator shall ensure that all operations on-site shall be carried out in a manner such that air emissions and/or odours do not result in significant impairment of, or significant interference with amenities or the environment or in a public health risk beyond the site boundary.

2.2.1.20 The operator shall monitor continuously the speed and the direction of the wind at the site. The results of this monitoring shall be presented in the form of a wind rose as part of the AER. In addition, any meteorological data collected by the operator shall be made available to the Authority upon request.

Determination of start-up and shut-down

2.2.1.21 The determination of periods of start-up and shut-down as defined in the following conditions shall be maintained in accordance with the provisions of Commission Implementing Decision 2012/249/EU.

2.2.1.22 The operator shall immediately inform the Authority should there be any changes in any aspects relating to each plant that affect start-up and shut-down periods, including the installed equipment, fuel type, plant role in the system and installed abatement technology,

2.2.1.23 The operator shall make sure that the frequency of start up and shut down periods are minimised as far as practicable.

2.2.1.24 The operator shall ensure that all abatement equipment is brought into operation as soon as is technically practicable.

2.2.1.25 Start-up and shut-down of the respective units is defined in the table 2.2.1.3:

Table 2.2.1.3 – Determination of start-up and shut-down for the respective unit at the Delimara Power Station

Determination of start-up and shut-down for DPS 1		
	Phase I A	**Phase I B**
End of Start-up period	17% of the rated electrical output	17% of the rated electrical output
Start of Shut-down period	17% of the rated electrical output	17% of the rated electrical output

Determination of start-up and shut-down for DPS 4 and DPS 5 (CCGT 3 and CCGT4)				
	DPS 4		**DPS 5**	
Mode	**Open Cycle**	**Combined Cycle**	**Open cycle**	**Combined cycle**
End of Start-up period	18% of the rated electrical output	18% of the rated l electrical output	18% of the rated electrical output	18% of the rated electrical output
Start of Shut-down period	18% of the rated electrical output	18% of the rated electrical output	18% of the rated electrical output	18% of the rated electrical output

Determination of start-up and shut-down for DPS 2 and DPS 3 (OCGT 1 and OCGT 2)		
	DPS 2	**DPS 3**
End of Start-up period	18% of the rated electrical output	18% of the rated electrical output
Start of Shut-down period	18% of the rated electrical output	18% of the rated electrical output

Determination of start-up and shut-down for DPS 6 (Diesel Engines 1 to 8)		
	Diesel Engine	Use of more than 1 diesel engine (used in the start up of the second diesel engine)
End of Start-up period	Upstream and downstream temperature of the SCR is >330°C	Upstream and downstream temperatures of the SCR of both engine 1 and engine 2 is >330 °C
End of Shut-down period	Engine load ≤13% of the rated DE Electrical output	Engine 1 and Engine 2 ≤13% of the rated DE Electrical output

2.2.2 Emissions to Air from DPS1 (boilers)

2.2.2.1 The Operator shall carry out monitoring of the parameters listed in Table 2.2.2.1, according to the frequency specified in this table. The monitoring method and the location of sampling points shall be in accordance with this table. Measurements shall be carried out in the waste gases of the individual units constituting DPS1.

2.2.2.2 The emission limit values specified in Table 2.2.2.1 shall not be exceeded. All concentrations shall be corrected to 273 K, 101.3 kPa, dry gas volume and to an oxygen (O2) content of 3%. These concentrations relate to volume flows without dilution.

Table 2.2.2.1 Monitoring and emission limits for DPS1

Parameter	Monitoring frequency	Monitoring method	Sampling points located according to	Emission limit value		Maximum allowable factor subtracted by validation, in accordance with LN 172/10
Dust (TSP)	Continuous	EN 13284-2:2004	EN 13284-1: 2004	55 mg/Nm^3 (97% of all 48 hourly mean values)	50 mg/Nm^3 (calendar monthly mean value)	30%
SO2	Continuous	ISO 7935:1992 or the equivalent EN standard	ISO 10396:2007 or the equivalent EN standard.	1639 mg/Nm^3 (97% of all 48 hourly mean values)	1490 mg/Nm^3 (calendar monthly mean value)	20%

Parameter	Monitoring frequency	Monitoring method	Sampling points located according to	Emission limit value		Maximum allowable factor subtracted by validation, in accordance with LN 172/10
NOx	Continuous	ISO 10849:1996 or the equivalent EN standard	ISO 10396:2007 or the equivalent EN standard	495 mg/ Nm^3 (95% of all 48 hourly mean values)	450 mg/ Nm^3 (calendar monthly mean value)	20%
CO	Continuous	EN 10558:2006	ISO 10396:2007 or the equivalent EN standard	110 mg/Nm^3 (97% of all 24 hourly mean values)	100 mg/Nm^3 (monthly average)	10%
Dioxins and furans (PCDDs and PCDFs)	Every two years	EN 1948-1,2,3,4:2006, sampling to be carried out over at least 6 hours		0.1 ng TEQ /Nm^3 (annual average) calculated as per schedule 6		-
Cadmium (Cd) and Thallium (Tl) together	Every six months	EN 14385:2004, sampling to be carried out over at least 6 hours	EN 13284-1: 2004	0.05 mg/Nm^3 (annual average)		-
Arsenic (As), Chromium (Cr), Cobalt (Co), Copper (Cu), Manganese (Mn), Nickel (Ni), Lead (Pb), Antimony (Sb) and Vanadium (V) together	Every six months	EN 14385:2004, sampling to be carried out over at least 6 hours	EN 13284-1: 2004	0.5 mg/Nm^3 (annual average)		-
PAHs as per Schedule 8	Annually	ISO 11338-1:2003 or equivalent, sampling to be carried out over at least 6 hours	ISO 12884:2000 or equivalent	-		-

2.2.2.3 Continuous measurements shall include the relevant process operation parameters of oxygen content, temperature, pressure and water vapour

content, velocity and flue gas volume, as per Condition 2.2.5.1, provided that where the sampled exhaust gas is dried prior to emission analyses, the Operator shall not be required to measure the water vapour content of the exhaust gas.

2.2.2.4 Discontinuous analyses shall be carried out by a laboratory accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025:2005/Cor 1:2006 and preferably for each and every analyte.

2.2.2.5 The operator may alternatively determine the concentration of heavy metals in the flue gases by subtracting the concentration of the metals in the boiler bottom-ash from the concentration of the metals in the fuel; taking into consideration the relative waste gas flow rates. Samples should be analysed to the relevant EN or EN ISO standards or equivalent.

2.2.2.6 In order to validate the hourly readings, the operator shall subtract a factor determined according to the procedure established by the relevant part of EN14181 and which shall in no case exceed the percentages of the measured valid hourly average value indicated in Table 2.2.2.1.

2.2.2.7 If the operator shows that carbon monoxide emissions are negligible through the submission of in-situ monitoring data which is representative of the operating mode of each plant, then the continuous monitoring requirement will be waived. These measurements shall be carried out by an auditor approved by MEPA.

2.2.2.8 If the continuous monitoring requirement is waived as per condition 2.2.2.7, the operator will be required to monitor carbon monoxide (CO) emissions discontinuously at least once daily. The sampling point shall be located as per BS 1756-4:1976 or the equivalent EN standard and the sampling time shall not be less than 6 hours.

2.2.3 Emissions to Air from DPS2-5 (Gas turbines)

2.2.3.1 The Operator shall carry out monitoring from DPS2-5 of the parameters listed in Table 2.2.3.1, according to the frequency specified in this table. The monitoring method and the location of sampling points shall be in accordance with this table.

2.2.3.2 The emission limit values specified in Table 2.2.3.1 shall not be exceeded. All concentrations shall be corrected to 273 K, 101.3 kPa, dry gas volume and to an oxygen (O_2) content of 15%. These concentrations relate to volume flows without dilution.

Table 2.2.3.1 Monitoring and emission limits for DPS2-5

Parameter	Monitoring frequency	Monitoring method	Emission limit value	Maximum allowable factor subtracted by validation, in accordance with LN 172/10
Dust (TSP)	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	-	-

Parameter	Monitoring frequency	Monitoring method	Emission limit value		Maximum allowable factor subtracted by validation, in accordance with LN 172/10
SO2	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	-		-
NOx (measured as NO2)	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	495 mg/ Nm^3 (95% of all 48 hourly mean values)	450 mg/ Nm^3 (calendar monthly mean value)	20%
CO	Continuous	ISO 11042-2: 1996 or the equivalent EN standard	55 mg/Nm^3 (97% of all 24 hourly mean values)	50 mg/Nm^3 (monthly average)	10%

2.2.3.3 Emissions from gas turbines DPS2 and DPS3 shall be monitored as per the standard in Table 2.2.3.1 above. In case this is not technically feasible, the operator shall use alternative monitoring techniques or other solutions which would ensure compliance with Regulation 14 of LN 172 of 2010.

2.2.3.4 Continuous measurements shall include the relevant process operation parameters of oxygen content, temperature, pressure and water vapour content, velocity and flue gas volume, as per Condition 2.2.5, provided that where the sampled exhaust gas is dried prior to emission analyses, the Operator shall not be required to measure the water vapour content of the exhaust gas.

2.2.3.5 In order to validate the hourly readings, the operator shall subtract a factor determined according to the procedure established by the relevant part of EN14181 and which shall in no case exceed the percentages of the measured valid hourly average value indicated in Table 2.2.3.1.

2.2.4 Emissions to Air from DPS6 (diesel engines)

2.2.4.1 The Operator shall carry out monitoring from DPS6 of the parameters listed in Table 2.2.4.1, according to the frequency specified in this table. The monitoring method and the location of sampling points shall be in accordance with this table.

2.2.4.2 The emission limit values specified in Table 2.2.4.1 shall not be exceeded. All concentrations shall be corrected to 273 K, 101.3 kPa, dry gas volume and to an oxygen (O_2) content of 15%. These concentrations relate to volume flows without dilution. The Authority may revise emission limits and monitoring frequencies for metals depending on the monitoring results. Monitoring for metals and PAHs shall not be required if DPS6 is operated using solely gasoil.

Table 2.2.4.1 Monitoring and emission limits for DPS6

Parameter	Monitoring frequency	Monitoring method	Emission limit value		Maximum allowable factor subtracted by validation, in accordance with LN 172/10
Dust (TSP)	Continuous	EN 15267-3, EN 14181	55 mg/Nm^3 (97% of all 48 hourly mean values)	50 mg/Nm^3 (calendar monthly mean value)	30%
SO2	Continuous	EN 14181, EN 15267-3, EN ISO 14956	132 mg/Nm^3 (97% of all 48 hourly mean values)	120 mg/Nm^3 (calendar monthly mean value)	20%
NOx (measured as NO2)	Continuous	EN 14181, EN 15267-3, EN ISO 14956	176 mg/Nm^3 (95% of all 48 hourly mean values)	160 mg/Nm^3 (calendar monthly mean value)	20%
CO	Continuous	EN 14181, EN 15267-3, EN ISO 14956	264 mg/Nm^3 (97% of all 24 hourly mean values)	240 mg/Nm^3 (calendar monthly mean value)	10%
Ammonia	Continuous	EN 14181, EN 15267-3, EN ISO 14956	2.6 mg/Nm^3 (annual average)		-
Cadmium (Cd) and thallium (Tl) together	Every three months	EN 14385:2004, sampling to be carried out over at least 6 hours (sampling points located according to EN 13284-1:2004)	0.02 mg/Nm^3 (annual average)		-
Chromium (Cr), cobalt (Co), copper (Cu), manganese (Mn), lead (Pb) and antimony (Sb) together	Every three months		0.2 mg/Nm^3 (annual average)		-
Arsenic (As)	Every three months		0.005 mg/Nm^3 (annual average)		-

Parameter	Monitoring frequency	Monitoring method	Emission limit value	Maximum allowable factor subtracted by validation, in accordance with LN 172/10
Nickel (Ni)	Every three months		0.345 mg/Nm^3 (annual average)	-
Vanadium (V)	Every three months		3.1 mg/Nm^3 (annual average)	-
PAHs as per Schedule 8	Annually	ISO 11338-1:2003 or equivalent, sampling to be carried out over at least 6 hours (sampling points located according to ISO 12284:2000)	0.009 mg/Nm^3	-

2.2.4.3 Continuous measurements shall include the relevant process operation parameters of oxygen content, temperature, pressure and water vapour content, velocity and flue gas volume, as per Condition 2.2.5, provided that where the sampled exhaust gas is dried prior to emission analyses, the Operator shall not be required to measure the water vapour content of the exhaust gas, and provided that flue gas volume and velocity may be calculated instead of measured where the parameters listed in table 2.2.1.2 are measured as per conditions 2.2.1.9 and 2.2.1.11.

2.2.4.4 Discontinuous analyses shall be carried out by a laboratory accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025:2005/Cor 1:2006 and preferably for each and every analyte.

2.2.4.5 The operator may alternatively determine the concentration of heavy metals in the flue gases by subtracting the concentration of the metals in the boiler bottom-ash from the concentration of the metals in the fuel; taking into consideration the relative waste gas flow rates. Samples should be analysed to the relevant EN or EN ISO standards or equivalent.

2.2.4.6 In order to validate the hourly readings, the operator shall subtract a factor determined according to the procedure established by the relevant part of EN14181 and which shall in no case exceed the percentages of the measured valid hourly average value indicated in Table 2.2.4.1.

2.2.5 Emissions to Air from DPS 1-6: Additional Monitoring Requirements

2.2.5.1 Without prejudice to previous conditions, the operator shall monitor continuously for the parameters listed in table 2.2.5.1 using the methods listed in the same table or their equivalent as may be agreed with the Authority.

Table 2.2.5.1: Monitoring of additional parameters

Parameter	Standard Number /Instrument	Title
Oxygen	ISO 12039:2001	Stationary Source Emissions - - Determination of carbon monoxide, carbon dioxide and oxygen - - Performance characteristics of automated measuring systems.
Water Content	EN 14790:2005	Determination of moisture content in stack gases.
Velocity	ISO 10780:1994	Stationary source emissions -- Measurement of velocity and volume flowrate of gas streams in ducts.
Flue gas volume	ISO 14164:1999	Stationary Source Emissions - - Determination of the volume flow rate of gas streams in ducts - - automated method.
Flue gas temperature (prior to discharge into the atmosphere)	Temperature Sensor	N/A
Flue gas pressure (prior to discharge into the atmosphere)	Pressure Sensor	N/A

2.2.6 Compliance with Total Emission Ceilings for Sulphur Dioxide (SO_2) and Oxides of Nitrogen (NO_x)

2.2.6.1 From the 1st January 2010 onwards, the total annual loads of sulphur dioxide (SO_2) and nitrogen oxides (NO_x) from both the Marsa Power Station and Delimara Power Station together shall not exceed the ceilings specified in Table 2.2.6 or any other annual ceilings as may be amended by the Authority from time to time.

Table 2.2.6 Emission Ceiling for Delimara Power Station and Marsa Power Station together.

Pollutant	Total Annual Load
Sulphur Dioxide (SO_2)	8000 tons
Nitrogen Oxides (NO_X)	4500 tons

2.2.6.2 The operator is to forward to the Authority:

2.2.6.2.1 By not later than end of September of each year, a detailed plan indicating how the installation will be operated in the following year in order to comply with the ceilings for sulphur dioxide and nitrogen oxides indicated in table 2.2.6. The measures communicated in this plan shall be to the satisfaction of the Authority.

2.2.6.2.2 By not later than end of September of each year (starting September 2009), the projected quarterly loads (Jan-Mar, Apr-

Jun, Jul-Sep, Oct-Dec) of SO_2 and NO_x from Delimara Power Station covering the following calendar year.

2.2.6.2.3 By not later than 2 weeks after the end of each quarter, a report in the format specified in Schedule 3 on the actual loads of SO_2 and NO_x emitted from Delimara Power Station during the previous quarter, and shall additionally submit revised projections of SO_2 and NO_x from Delimara Power Station for the remaining quarters of that calendar year.

2.2.6.3 The measures to be included in the plan as per Condition 2.2.6.2.2 shall also take into account that the Operator currently operates another power plant which is located on a separate site and which is also covered by the requirements of the Industrial Emissions (IPPC) Regulations.

2.2.6.4 The Competent Authority reserves the right to reduce these ceilings further particularly but not solely:

2.2.6.4.1 in the event of there being a new entrant on the power production market in Malta;

2.2.6.4.2 if it transpires that due to unforeseen circumstances the contributions of other sectors to the National Ceilings as per LN 291 of 2002 as amended by LN 232 of 2004 have been underestimated or if it transpires that sectors which also contribute to the total annual loads of these pollutants have been ignored;

2.2.6.4.3 if it is decided that such a decision is in the national interest.

2.2.6.5 The ceilings listed in table 2.2.6 shall expire on the 31 December 2019.

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2.2.7 Emissions to Air (excluding Odour, Noise or Vibration) from Specified Points: Total Annual Emissions and Other Reporting

2.2.7.1 Starting on the 1st January 2009 and for each subsequent year, the Operator shall keep an inventory of the total annual emissions of SO_2, NO_x and dust (as total suspended particles) from all combustion plants at the Delimara Power Station with a rated thermal input of 50 MW_{th} or more, including the gas turbines and diesel engines. This inventory shall be submitted as part of the AER of the installation in the format specified in Schedule 2.

2.2.7.2 In addition to the total annual emissions of the pollutants listed in 2.2.7.1, the inventories shall also include the total fuel burn per plant, the fuel type and the average heat value of the fuel fired.

2.2.7.3 The Operator must keep record of the following:

2.2.7.3.1 The validated hourly concentration values of TSP, SO2, NOx and CO for each combustion plant per day (in the format specified in Schedule 4 and clearly indicating any exceedances).

2.2.7.3.2 24-hourly mean values for the concentration of carbon monoxide (CO) (in the format specified in Schedule 4 and clearly indicating any exceedances).

2.2.7.3.3 48-hourly mean concentration values of TSP, SO2 and NOx (in the format specified in Schedule 4, and clearly indicating any exceedances).

2.2.7.3.4 For TSP, SO2, NOx and CO, calendar monthly mean concentrations (in the format specified in Schedule 4) and monthly loads for TSP, SO2 and NOx (in the format specified in Schedule 2, and clearly indicating any exceedances).

2.2.7.3.5 The total annual load of TSP, SO2 and NOx, which shall be calculated by adding the total mass of pollutant emitted per year, on the basis of the volumetric flow rates of waste gases (in the format specified in Schedule 2).

2.2.7.3.6 For DPS1 and DPS6, the total annual load of Ni and V, which shall be calculated by adding the total mass of pollutant emitted per year, on the basis of the volumetric flow rates of waste gases and by multiplying concentrations in the fuel by fuel use (in the format specified in Schedule 2).

2.2.7.3.7 For DPS6, the total annual load of ammonia, which shall be calculated by adding the total mass of pollutant emitted per year, on the basis of the volumetric flow rates of waste gases (in the format specified in Schedule 2).

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2.2.8 Emissions to Air (excluding Odour, Noise or Vibration) from Specified Points: Performance and Calibration of Automated Measuring Systems

2.2.8.1 The commissioning and operation of all automated measuring systems at the Delimara Power station shall follow EN 14181:2004 – Stationary Source Emissions – Quality Assurance of automated measurement systems.

2.2.8.2 Measuring systems shall be subject to control by means of parallel measurements with the reference methods listed in table 2.2.8 at least every year. The calibrations shall be performed by a lab accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025:2005/Cor 1:2006 and preferably accredited for each and every calibration.

Table 2.2.8 Calibration of Automated Measuring Systems

Standard Number	Title
EN 14791:2005	Stationary source emissions - Determination of mass concentration of sulphur dioxide - Reference method.
EN 14792 :2005	Stationary source emissions - Determination of mass concentration of nitrogen oxides (NOx) - Reference method: Chemiluminescence.
EN 13284-1:2001	Stationary source emissions - Determination of low range mass concentration of dust - Part 1: Manual gravimetric method.

2.2.8.3 For the parameters measured continuously, the data for 1 day shall be invalidated if on that day 3 or more hourly average concentration of dust (TSP), sulphur dioxide (SO_2), nitrogen oxides (NO_x) and carbon monoxide (CO) values are invalid due to malfunction or maintenance of the continuous monitoring system.

2.2.8.4 If more than 10 days in a year are invalidated for such situations, the Operator must take adequate measures to improve the continuous monitoring system.

2.2.9 Emissions to Air (excluding Odour, Noise or Vibration) from Specified Points: Emergency Considerations

2.2.9.1 In the case of an interruption in the supply of low sulphur fuel due to a serious shortage, the Director of Environment Protection may allow a suspension for a maximum of six (6) months from the obligation to comply with the emission limit values for sulphur dioxide from DPS1. In such cases, the operator shall operate DPS6 using diesel.

2.2.9.2 The Director of Environment Protection shall be immediately notified about any interruptions in the supply of low-sulphur fuel.

2.2.9.3 In case the operator opts to control sulphur dioxide emissions from DPS1 through the use of low sulphur fuel, condition 2.2.9.1 above shall not apply unless the operator secures a supply through a long term supply contract of low sulphur fuel to ensure compliance with the limit value for sulphur dioxide.

2.2.9.4 Notwithstanding condition 2.2.9.1, in case of emergency the operator is obliged to use the fuel having the lowest sulphur content available at the time so as to ensure to the fullest extent possible that the ambient levels specified in LN 478 of 2010 and subsequent amendments are not exceeded.

2.2.9.5 The operator shall keep an adequate supply of reagents used for abatement on site to ensure adequate abatement in case of shortage. In case of a malfunction or breakdown of any abatement equipment, or shortage of reagent, the Operator shall reduce or close down operations if a return to normal operations is not achieved within 24 hours.

2.2.9.6 Under no circumstance shall the cumulative unabated operation in any twelve-month period exceed 120 hours.

2.2.9.7 The Director of Environment Protection may allow exceptions to the 24 hours and 120 hours in 2.2.9.5 and 2.2.9.6 respectively in cases where in the Director's judgement:

2.2.9.7.1 there is an overriding need to maintain energy supplies

2.2.9.7.2 the plant with the breakdown would be replaced for a limited period by another plant which would cause an overall increase in emissions.

2.2.9.8 The Director of Environment Protection shall be notified about any malfunction or breakdown of the abatement equipment within 24 hours as per Condition 5.15.1.2 of this permit.

2.2.9.9 The Operator shall keep together in a log book all notifications compiled after:

(a) the occurrence of any malfunction to the abatement equipment,

(b) an interruption in the supply of low-sulphur fuel.

2.2.9.10 The log book shall be made available for inspection upon request.

2.3 Discharges to sewers

2.3.1 The Operator shall abide by the conditions of any Sewer Discharge Permit from the Water Services Corporation. The operator shall also abide by the provisions of the Sewer Discharge Control Regulations (LN139 of 2002 as amended by LN378 of 2005 and as may be amended from time to time).

2.3.2 Rainwater shall be segregated from all process areas that are potentially contaminated with raw materials, intermediates and/or products.

2.3.3 Rainwater shall not be discharged into the sewer.

2.3.4 With the exception of sanitary waters, the Operator shall not discharge any waste waters into the sewers.

2.4 Discharges to groundwater

2.4.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any substance in List I and List II (as defined in the Regulations for The Protection of Groundwater against Pollution caused by Certain Dangerous Substances, 2002 (LN 203 of 2002)).

2.4.2 For substances other than those in List I or II (as defined in LN 203 of 2002), the Operator shall not allow any discharges to groundwater.

2.4.3 The operations of the installation shall not hinder the achievement of good chemical and quantitative status of groundwaters as prescribed under the Water Policy Framework Regulations, LN194 of 2004 as may be amended from time to time.

2.5 Emissions to Marine Water

2.5.1 Emissions to Marine Water from Specified Points: General Considerations

2.5.1.1 This Part 2.5 of this Permit shall not apply to discharges to groundwater or sewers.

2.5.1.2 Waste waters shall not be discharged into marine water unless from the sources specified in table 2.5.1.1, and only from the sources for those release points specified by the table in question.

Table 2.5.1.1 Emissions to Marine Water

Outlet Number (as per Schedule 9)	Details	UTM Co-ordinates[2]	
		x-coordinate	y-coordinate
Point 1	Water reservoir overflow	459,647	3,965,869
Point 2	Oil interceptor (water from the waste storage area, turbine hall drains)	459,754	3,965,707
Point 3	Water reservoir overflow	459, 903	3,965,595
Point 4	Oil interceptor (fuel tank area), water from fuel centrifugation	459,860	3,965,516
Point 5	Water treatment, cooling systems, waste water from steam generation, waste water from boiler washdown	460,154	3,965,839

2.5.1.3 Dry outlets and release points whose sources are unidentified should be securely and permanently disconnected from the discharge pipe-work. Furthermore the operator shall not discharge any waste waters through these outlets.

2.5.1.4 Waste waters may contain microbiocidal agents only after having undergone shock treatment with microbiocides. This shall not apply to the use of hydrogen peroxide or ozone.

2.5.1.5 No specified emission to water shall exceed the emission limit values set out in Table 2.5.1.2, without prejudice to condition 2.5.1.16. The emission limits shall apply to the waste water at the point of discharge into the sea. There shall be no other emissions to water of environmental significance.

2.5.1.6 Monitoring and analyses of each substance shall be carried out according to the frequencies specified in Table 2.5.1.2 and according to the methodologies specified in the same table or equivalent methods as approved by the Authority. Where a method with a detection limit appropriate for the emission limit value in Table 2.5.1.2 is not available, the Authority may allow a method with a higher detection limit to be used instead. Samples taken shall be representative.

2.5.1.7 Monitoring of parameters 1 and 4-25 from point 4 is required prior to discharge of waste water **only** in case of a spillage of fuel from any tank. Testing of total petroleum hydrocarbons shall however be carried out continuously whenever water from fuel centrifugation (or other forms of water removal) is being discharged.

[2] Zone 33s, datum ED 50, ellipsoid – Hayford International.

2.5.1.8 The Authority may change monitoring parameters and frequencies as it considers appropriate, depending on the monitoring results submitted by the operator. The authority may require monitoring for adsorbable organic halogens (AOX) should the Operator start using organic halogenated compounds.

Table 2.5.1.2 Emission limits and monitoring for emissions to marine water

No.	Parameter	Emission limit value (annual average)	Measurement methodology	Monitoring frequency	
				Point 5	Point 2
1	Flow	-	Flow meter	Continuous or calculated	Continuous or calculated
2	pH	6-10	pH meter	Continuous	-
3	Temperature	8 ℃ above marine water	Digital thermometer	Continuous	-
4	Biological oxygen demand (BOD5)	25 mg/L	EN 1899: 1998	Annual	Annual
5	Total Nitrogen	10 mg/L	EN 12260:2003	Quarterly	Annual
6	Phosphorous compounds as total phosphorous, as per EN ISO 15681	1 mg/L	EN ISO 15681: 2004	Annual	Annual
8	Chlorine dioxide and oxidants (given as chlorine)	0.3 mg/L	DIN 38408-5	Quarterly	Annual
9	Arsenic	5 µg/L	ISO 11885: 2007	Quarterly	Annual
10	Cadmium[3]	0.2 µg/L	ISO 11885: 2007	Quarterly	Annual
11	Chromium (Total)	0.5 mg/L	ISO 11885: 2007	Every six months	Annual
12	Copper	0.5 mg/L	ISO 11885: 2007	Quarterly	Annual
13	Lead	7.2 µg/L	ISO 11885: 2007	Quarterly	Annual
14	Mercury	0.05 µg/L	ISO 11885: 2007	Every six months	Annual
15	Nickel	20 µg/L	ISO 11885: 2007	Quarterly	Annual
16	Tin	1.0 mg/L	ISO 11885: 2007	Annual	Annual
17	Vanadium	4 mg/L	ISO 11885: 2007	Annual	Annual
18	Zinc	4 mg/L	Method 3125B, AWWA/APHA, 20th Ed, 1999	Every six months	Annual
19	Total petroleum hydrocarbons	5 mg/L	ISO 9377-2: 2000	Every six months	Annual

[3] Tests from the cooling water outfall for cadmium, chromium, copper, nickel, lead and zinc shall be carried out on composite samples consisting of samples of equal size taken at monthly intervals and blended prior to analysis, in accordance with ISO 5667-3:2003 or equivalent.

No.	Parameter	Emission limit value (annual average)	Measurement methodology	Monitoring frequency	
				Point 5	Point 2
20	Tributyl tin compounds (tributyltin cation; CAS number 36643-28-4)	0.0002 µg/L	EN ISO 17353: 2005	Quarterly	Annual
21	Total Suspended Solids	35 mg/L	EN 872:2005	Annual	Annual
22	Benzene (CAS number 71-43-2)	8 µg/L	EN ISO 15680:2003	Quarterly	Annual
23	PAHs as follows:				
	Benzo(a)pyrene	0.05 µg/L	EN ISO 17993:2003	Annual	Annual
	Benzo(b)fluor-anthene, Benzo(k)fluor-anthene	Sum of 2 PAHs: 0.03 µg/L	EN ISO 17993:2003	Annual	Annual
	Benzo(g,h,i)-perylene, Indeno(1,2,3-cd)-pyrene	Sum of 2 PAHs: 0.002 µg/L	EN ISO 17993:2003	Annual	Annual
24	C10-C13 chloroalkanes (CAS number 85535-84-8)	0.4 µg/L	EPA 8270D:2007	Annual	Annual
25	Polychlorinated biphenyls (CAS number 1336-36-3)	3 µg/L	USEPA method 8082, EA method 174 and 5109631	Annual	Annual

2.5.1.9 In case of any exceedances of the emission limit values in Table 2.5.1.2, the operator shall as part of the AER submit an action programme to the Authority aimed at achieving these emission limits. Alternatively, the operator may designate a mixing zone following the procedures specified in Regulation 8(b) (Mixing Zones) in Legal Notice 24 of 2011.

2.5.1.10 No substance shall be discharged in a manner, or at a concentration which following initial dilution, causes tainting of fish or shellfish.

2.5.1.11 The operator is to maintain an operating journal in which the operating and auxiliary substances are listed. The operator shall also attach Material Safety Data Sheets of the operating and auxiliary substances.

2.5.1.12 An annual report summarising emissions to water from the installation shall be submitted to the Authority as part of the AER. The information contained in this report shall be prepared in accordance with format specified in Schedule 2.

2.5.1.13 The operator shall make sure that any sampling and chemical analysis is carried out by a laboratory accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025: 2005/Cor 1: 2006 and preferably for each and every test listed in table 2.5.1.2. The operator shall include a copy of the laboratory's accreditation certification in the AER.

2.5.1.14 The operations of the installation shall not hinder the achievement of good status for surface water as required under the Water Policy Framework Regulations, LN 194 of 2004 (as amended).

2.5.1.15 The operator shall not use any of the priority substances in the field of water policy listed in schedule 7 at the site covered by this permit.

2.5.1.16 As from 1 December 2020, the operator shall not discharge any of the following substances:

Benzo(a)pyrene
Benzo(b)fluor-anthene
Benzo(k)fluor-anthene
Benzo(g,h,i)-perylene
Indeno(1,2,3-cd)-pyrene
C10-C13 chloroalkanes
Cadmium
Mercury
Tributyltin compounds

2.5.1.17 The operator shall carry out ecological surveys to assess the impact of the cooling water outfall on the habitat types and species listed in the Schedules to the Flora, Fauna and Natural Habitats Protection Regulations (LN 311/06), including *Pinna* spp., and *Posidonia* and *Cymodocea* meadows, in the surrounding waters. The surveys shall be carried out annually in the same month each year, with the first survey being carried out by end December 2012. Any decline in the conservation status of the habitat types and species in the area, especially those listed in the Schedules to LN 311/06, shall be immediately reported to the Authority, and followed up with proposals for mitigation measures, which shall be reviewed and agreed to by the Authority prior to their implementation. This information shall be included with the Annual Environmental Reports, in the format indicated in Schedule 2. The operator shall submit to the Authority a proposed methodology for this study, which shall be to the Authority's satisfaction.

2.5.2 Discharges to Marine Water: General Monitoring Conditions

2.5.2.1 All sampling carried out by the operator with the scope of monitoring compliance with the conditions listed in this permit shall be carried out according to the standards listed in table 2.5.2 or equivalent.

Table 2.5.2 Sampling

Standard	Description
ISO 5667-1: 2006	Water quality -- Sampling -- Part 1: Guidance on the design of sampling programmes and sampling techniques
ISO 5667-3: 2003	Water quality -- Sampling -- Part 3: Guidance on the preservation and handling of water samples
ISO 5667-7: 1993	Water quality -- Sampling -- Part 7: Guidance on sampling of water and steam in boiler plants
ISO 5667-10: 1992	Water quality -- Sampling -- Part 10: Guidance on sampling of waste waters
ISO 5667-14: 1998	Water quality -- Sampling -- Part 14: Guidance on quality assurance of environmental water sampling and handling

2.5.2.2 The operator shall use a monitoring survey of the sediments around the cooling water inlet and outlet by end December 2012, in order to determine the impact of the installation on the marine environment.

2.5.3 Discharges to Marine Water: Requirements for Waste Water arising from Non-process Water

2.5.3.1 These requirements apply to discharges from points 2 and 4.

2.5.3.2 The operator shall carry out a visual examination of the surface water discharge daily and shall maintain a log of such inspections. The operator shall ensure that no visible oil layer is present in surface water prior to discharge. Surface water that appears contaminated shall be treated prior to discharge to seawater.

2.5.3.3 The oily water separator system shall have a continuous hydrocarbon detector with alarm. For point 4, no discharge of wastewater is allowed if the emission limit value is exceeded. Detection of oily water in point 2 or 4 above the emission limit value shall be followed by immediate investigation and appropriate mitigation measures.

2.5.3.4 Surface run-off (rainwater) that might be contaminated by any spillage of fuel from fuel storage and handling shall be collected and treated prior to discharge.

2.5.3.5 In the event that any analyses or observations made on the quality or appearance of waste water from surface runoff should indicate that a contamination has taken place, the operator shall:

2.5.3.5.1 Carry out an immediate investigation to identify and isolate the source of the contamination;

2.5.3.5.2 Put in place measures to prevent further contamination and to minimise the effects of any contamination on the environment;

and

2.5.3.5.3 notify the Authority as soon as is possible as per Condition 5 of this permit.

2.5.4 Discharges to Marine Water: Other Conditions

2.5.4.1 All storage areas (including for fuel, waste, chemicals, etc.) shall be rendered impervious to the materials stored therein. In addition, areas for storage of liquid hazardous materials shall be bunded, either locally or remotely, to a volume not less than the greater of the following

2.5.4.1.1 110% of the capacity of the largest tank or container within the bunded area.

2.5.4.1.2 25% of the total volume of substance which could be stored within the bunded area.

Areas for storage of solid hazardous materials shall also have appropriate vehicle access control measures.

2.5.4.2 Drainage from bunded areas shall be diverted for collection and safe disposal, or appropriate treatment prior to discharge.

2.5.4.3 The integrity testing of any bunds for tanks/containers as required by condition 2.5.4.1 up to 25 m^3 must be carried out at least once every three years according to CIRIA 163, Construction Industry Research and Information Association Report 163 – Construction of Bunds for Oil Storage Tanks. The test must be carried out by an approved auditor and the inspection report and any ensuing certification must be included in the AER in the format specified in Schedule 2. Testing of bunds for wastes is not required if hazardous liquid wastes are stored on drip trays or prefabricated bunds.

2.5.4.4 For bunds of tanks as required by condition 2.5.4.1 greater than 25 m^3, visual inspections shall be carried out at least weekly by a warranted engineer, who shall as a minimum examine the following elements:

- Identification of any cracks or faults in the bund walls or floors;
- Whether the bund is holding rainwater during/after episodes of rain;
- Whether drain holes are present in the bund which could lead to emissions (if this is the case, these would need to be sealed with waterproof cement or a material of at least equivalent impermeability);
- The presence of any damp patches which could indicate cracks.

Any faults identified during the inspection must be followed by immediate action to remedy the situation. Such inspections must be recorded, together with any faults and remedial actions taken.

Such bunds shall also be certified annually by a warranted civil engineer.

2.5.4.5 The unloading of HFO and gasoil shall be supervised at all times and shall be undertaken in accordance with the standard operating procedure or as amended.

2.5.4.6 The pipes, pumps, valves and flanges forming part of the system which transfers fuel from the delivery ship to the tanks in the tank farm shall be certified to be leak-proof by an approved auditor at least once every three years. The inspection report and any ensuing certification must be included in the AER in the format specified in Schedule 2.

2.5.4.7 All oil transfers shall be undertaken in accordance with the oil spillage response plan submitted as part of the IPPC permit application.

2.5.4.8 All personnel involved in the transfer of HFO and gasoil from ships to storage or from storage to the generating stations shall be trained in the oil spillage response plan. Records of such training shall be maintained and made available for inspection by Authority personnel.

2.5.4.9 The loading and unloading of other materials shall be carried out in designated areas protected against spillage and leachate run-off.

2.5.4.10 All fuel tanks shall be fitted with a high level alarm and, for fuel tanks used for internal fuel transfer, a high-high liquid level alarm with automatic stoppage of pumps and automatic closure of valves in the event of a high-high level alarm.

2.5.4.11 All flanges and valves on over-ground pipes used to transport materials other than uncontaminated water, where no permanent provision for containment of leaks is provided, shall be subject to weekly visual inspection or otherwise monitored for leaks to the satisfaction of the Authority. All such inspections shall be recorded in a log which shall be available for inspection by the Authority.

2.5.4.12 All the flanges, valves and over-ground pipes listed in 2.5.4.11 shall be certified by an accredited auditor to be completely leak-proof at least once every three years. Any ensuing inspection report shall be included in the AER in the format specified in Schedule 2.

2.5.4.13 The operator shall have in storage an adequate supply of containment booms and suitable absorbent material to absorb any spillage.

2.5.4.14 Valves on bunds shall be maintained in closed position except during bund drainage. Drainage of water collecting in bunds shall be carried out under constant supervision. No discharges shall be undertaken from bunds where there is a visible film of oil on the bund water.

2.5.4.15 All the oil interceptors shall be monitored on a monthly basis and maintained to ensure efficient operation. A log of monitoring and interceptor waste removal shall be maintained on site for inspection.

2.5.4.16 All the oil interceptors shall be inspected by an accredited auditor at least once every three years. The accredited auditor shall amongst other things inspect the interceptor for efficiency of operation. Any ensuing certification shall be included in the AER.

2.5.4.17 The operator shall carry out ultrasonic testing of shell thickness on fuel tanks and report this as part of the AER. Such testing shall be carried out every two years (starting in 2012) for existing fuel tanks, and every five years (starting in 2016) for new fuel tanks servicing DPS6.

2.6 Fugitive emissions of substances to air

2.6.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to air from the Permitted Installation, in particular from the:

- process areas
- storage areas, including solvent storage, raw materials (including fuel) storage and waste storage
- buildings
- pipes, valves and other transfer systems
- open surfaces

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.6.2 Fuel tanks shall be connected to appropriate abatement systems to the satisfaction of the Authority, such that fugitive emissions and odours from the fuel tanks are sufficiently mitigated. The operator shall keep a log of opening and closing times of pressure relief valves.

2.6.3 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of litter from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.7 Fugitive emissions of substances to water and sewer

2.7.1 Subject to condition 2.7.2, the Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to

water (other than groundwater) and sewer from the Permitted Installation, in particular from:

- All structures under or over ground
- Surfacing
- Storage areas
- Bunded areas.

2.7.2 The Operator shall undertake all necessary measures and precautions to prevent spillage of raw materials, intermediates, products, waste and any other materials.

2.7.3 Connection points for fuel unloading must be appropriately contained. Any accidental release of substances shall be duly treated prior to discharge or disposed/recovered appropriately. Records shall be kept of such discharges, including the volume discharged.

2.7.4 Rainwater shall be segregated from all areas (including areas for fuel storage and raw materials) that are potentially contaminated.

2.7.5 Rainwater shall not be discharged into the sewer or onto a public place or thoroughfare.

2.7.6 The rate of flow into treatment chambers (e.g. interceptors) shall not exceed design capacity.

2.8 Waste

2.8.1 Waste storage and handling

2.8.1.1 The Operator shall use BAT in the design, maintenance and operation of all facilities for the storage and handling of waste on site such that there are no releases to water or land during normal operation and that emissions to air and risk of accidental release to water or land are minimised.

2.8.2 Waste recovery or disposal

2.8.2.1 The Operator shall be committed to reduce waste generation where possible.

2.8.2.2 Waste produced at the Permitted Installation shall be recycled, reused or recovered unless technically and/or economically impossible. When practical recyclable wastes should be segregated to facilitate recycling.

2.8.2.3 Unless approved in writing by the Authority, the Permit Holder is prohibited from mixing a hazardous waste of one Category with a hazardous waste of another category or with any other waste, substances or materials.

2.8.2.4 A full record which shall be open to inspection by authorised persons of the Authority at all times, shall be kept by the Permit Holder on matters relating to the waste management operations and practices at this site. This record shall be included as part of the plan for the Environmental Management System of the installation and shall be in place by not later than six months from the date of issue of this permit. This record shall as a minimum contain details of the following:

2.8.2.4.1 The tonnages and EWC Codes for the waste materials removed off site as per Decision 2000/532/EC establishing a list of waste as may be amended from time to time.

2.8.2.4.2 The names of the Company and carrier of the waste and their Permit details (either waste registration or waste management permit).

2.8.2.4.3 Details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its Waste Management Permit details and number.

2.8.2.4.4 Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.

2.8.2.4.5 Details of all wastes consigned abroad for disposal or recovery and classified as List A or List B in accordance with Annex V of the EU Transfrontier Shipment of waste regulations (Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, as may be amended from time to time). The rationale for the classification must form part of the record.

2.8.2.4.6 Details of any approved waste mixing as per condition 2.8.2.3.

2.8.2.5 Disposal of wastes are to be managed in accordance with the legal obligations of the Waste Regulations 2011 as per Legal Notice 184 of 2011 as may be amended from time to time.

2.8.2.6 Disposal or recovery of waste shall take place only at permitted sites. No waste shall be disposed of/recovered either on site or off-site without prior notice to, and prior written agreement of, the Authority.

2.8.2.7 Any packaging waste and separately collected non-hazardous waste including but not limited to glass, plastic, metal, wood, cardboard and paper shall not be disposed of in a landfill.

2.8.2.8 All wastes shall be stored within (a) designated and controlled storage area(s) prior to ultimate disposal; wastes to be recycled should be stored in a designated labelled container or area and not mixed with other wastes. The operator shall ensure adequate protection and containment of all wastes.

2.8.2.9 The Permit Holder shall ensure that waste transferred to another person is packaged and labelled in accordance with national, European and any other standards which are in force in relation to such labelling. While awaiting collection, recovery or disposal all waste shall be stored in designated areas protected, as may be appropriate, against spillage, leachate run-off and accidental damage. The waste is to be clearly labelled and appropriately segregated.

2.8.2.10 Liquid and hazardous wastes shall be stored in (a) labelled, closed container(s) within a designated and controlled storage area(s) prior to ultimate disposal which shall be appropriately contained to ensure no contamination of the environment and/or public health risk in case of spillage. Wastes of different natures should not be mixed in the same container.

2.8.2.11 Waste oils must be stored in a secure leakproof container and may only be disposed of through a company authorised for the collection of waste oils or at an authorised site. A record must be maintained of the quantities, nature, manner and date of dispatch of the oil.

2.8.2.12 No storage of waste is permitted for a period exceeding 12 months.

2.8.2.13 On-site disposal of wastes by any means including burning, disposal to drain or surface water, burying or deposition on land is prohibited, unless specifically approved by a permit from the Authority or the Water Services Corporation (WSC).

2.8.2.14 Transport of hazardous waste within the Maltese Islands shall be accompanied by the necessary waste transfer permits issued by the Authority. Applications for such permits are made through the hazardous waste consignment note procedure available from the Authority's Offices.

2.8.2.15 Each movement of hazardous waste to authorised facilities shall be covered by a valid consignment permit obtainable from the Authority. Each movement shall also be covered by a consignment note obtainable from the Authority.

2.8.2.16 Disposal certificates shall be kept on record and made available for inspection for a period of at least 5 years from date of their issue.

2.8.2.17 Waste sent off-site for recovery or disposal shall be conveyed only by an authorised waste carrier as per Activity 38 of Schedule 1 of Legal Notice 106 of 2007 as may be amended from time to time. The waste shall be transported only from the site of the activity to the site of recovery/disposal in a manner which shall not adversely affect the environment and in accordance with all relevant National and European legislation.

2.8.2.18 The transport of waste off-site shall be by means of a waste carrier authorised for that waste.

2.8.2.19 Off-site disposal or recycling of wastes may only take place at a facility licensed for that purpose by the Authority.

2.8.2.20 Shipment of hazardous waste abroad is to follow the obligations listed in Council Regulation (EC) 1013/2006 of the European Parliament and of The Council of 14 June 2006 on shipments of waste, as may be amended from time to time.

2.8.2.21 None of the waste streams listed in Annexes 3, 4 and 5 of the EU Transfrontier Shipment of Wastes Regulations Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste (as may be amended from time to time) shall be consigned for recovery/disposal without the prior agreement of the Authority.

2.8.2.22 Records shall be maintained for the disposal of all hazardous waste, including quantities, dates, contractor name and manner of disposal. The records should be maintained for a period of 5 years and be made available for inspection by the Authority upon request.

2.8.2.23 No storage of waste, equipment or materials is permitted on property outside the site premises.

2.8.2.24 Non-hazardous waste awaiting collection may be placed outside the site premises for a period not exceeding 12 hours.

2.8.2.25 Drums and containers of chemicals/oils shall be stored in designated and secure storage areas. Storage areas shall be bunded or otherwise designed so that surface and ground waters cannot be contaminated by spillages.

2.8.2.26 All storage of materials or waste shall take place only in locations where thorough clean-up and site reinstatement can be readily undertaken.

2.8.2.27 For any decommissioned equipment, the permit holder shall submit to the Authority a proposal for the screening of the intended equipment to be discarded which should include the details of any hazardous materials in the equipment (including but not limited to radioactive sources, hazardous chemicals, etc.), decontamination procedures and the procedures for final disposal.

2.8.2.28 The Operator shall have in place a waste collection, transport and export service contract for flue gas desulphurisation waste, a copy of which shall be submitted to the Authority prior to the first generation of flue gas desulphurisation waste. Otherwise, DPS6 shall be operated using solely diesel until the situation is rectified.

2.8.2.29 When the maximum site capacity for storage of flue gas desulphurisation waste has been reached, DPS6 shall be operated using solely diesel until the situation is rectified.

2.8.2.30 A summary record of the waste quantities removed from the site shall be made for each quarter of the reporting year (January-March, April-June, July-September and October-December) and shall be submitted to the Authority in the format specified in Schedule 3.

2.8.2.31 As part of the Annual Environmental Report for the installation, the Operator shall produce a report on the off-site transfers of waste from the Permitted Installation over the previous calendar year, by end of March of each year, providing the information listed in the format specified in Schedule 2.

2.9 Odour

2.9.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce odorous emissions from the Permitted Installation, in particular by:

2.9.1.1 limiting the use of odorous materials;

2.9.1.2 restricting odorous activities;

2.9.1.3 controlling the storage conditions of odorous materials;

2.9.1.4 controlling processing parameters to minimise the generation of odour;

2.9.1.5 optimising the performance of abatement systems;

2.9.1.6 timely monitoring, inspection and maintenance;

2.9.1.7 employing, where appropriate, an approved odour management plan; provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.9.2 There shall be no significant offensive odour, as perceived by an Authorised Officer of the Competent Authority, at sensitive locations.

2.9.3 In case of complaints from sensitive receptors regarding odours from the urea solution, the Authority may require the Operator to submit an odour management plan, which would include recommendations for abatement of the odour and timeframes for implementation.

2.10 Emissions to Land

2.10.1 This Part 2.10 of this Permit shall not apply to emissions to groundwater.

2.10.2 The operator shall take all precautions to ensure that no emission from the Permitted Installation shall be made to land.

2.10.3 In the event of accidental contamination of land, the operator shall notify the Authority immediately, forward a decontamination plan and execute it within 1 week of the event.

2.11 Noise and Vibration

2.11.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of noise and vibration from the Permitted Installation, in particular by:

2.11.1.1 equipment maintenance, e.g. circulating pumps, extraction fans, compressors, silencers.

2.11.1.2 use and maintenance of appropriate attenuation, eg. silencers, barriers, enclosures;

2.11.1.3 appropriate timing and location of noisy activities and vehicle movements;

2.11.1.4 periodic checking of noise emissions, either qualitatively or quantitatively; and

2.11.1.5 maintenance of building fabric

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.11.2 Emergency generators/alarms/sirens/release valves shall only be tested between the hours of 7.00 and 19.00 Monday to Friday and not on any Public Holiday.

2.11.3 The level of noise emitted from the installation at all operational times shall not exceed the background noise level by 5dB, excluding during the use of emergency sirens and alarms and start-ups.

2.11.4 Noise monitoring is to be carried annually, to ensure that the above limits are not exceeded. The locations shall be chosen and the measurements and assessment made according to BS 4142:1997.

2.11.5 As part of the AER, records of noise monitoring of the previous year shall be submitted to the Competent Authority by not later than end of March after the end of each reporting year, in the format specified in Schedule 2 of this permit. A detailed report shall also accompany such results.

2.12 Management and Technically Competent Person

2.12.1 A copy of this Permit and those parts of the application referred to in this Permit shall be available at the place of work, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.

Training

2.12.2 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.

2.12.3 All staff shall be fully conversant with those aspects of the Permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training and written operating instructions to enable them to effectively carry out their duties.

2.12.4 The Operator shall maintain a record of the skills and training requirements for all staff whose tasks in relation to the Permitted Installation may have an impact on the environment and public health and shall keep records of all relevant training.

Maintenance

2.12.5 All plant and equipment used in operating the Permitted Installation shall be maintained in good operating condition.

2.12.6 The Operator shall maintain a record of plant and equipment covered by condition 2.12.5, and for such plant and equipment:

2.12.6.1 a written or electronic maintenance programme; and

2.12.6.2 records of its maintenance.

Incidents and Complaints

2.12.7 The Operator shall maintain and implement written procedures for:

2.12.7.1 taking prompt remedial action, investigating and reporting to the Competent Authority actual or potential non-compliance with operating procedures or emission limits and if such events occur;

2.12.7.2 investigating incidents, (including any malfunction, breakdown or failure of plant, equipment or techniques, down time, any short-term and long-term remedial measures and near-misses) and prompt implementation of appropriate actions; and

2.12.7.3 ensuring that detailed records are made of all such actions and investigations.

2.12.8 The Operator shall record and investigate complaints concerning the Permitted Installation's effects or alleged effects on the environment and public health. The record shall give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken.

2.12.9 As part of the AER of the Permitted Installation, the Operator shall provide report on incidents and complaints in the format specified in Schedule 2.

Attendance of Technically Competent Person(s)

2.12.10 Attendance of the technically competent person(s) at the Site shall be recorded in the Site diary on arrival and departure.

2.12.11 For the whole operational hours permitted for the Site under this Permit, the Technically Competent Person/s shall be physically in attendance at the Site. The Technically competent Person/s has to be permanently present on site during generation of electrical energy. The permit holder is to provide details as to how he intends to provide this coverage in order to take into account unavoidable absences due to continuous operation, vacation or sick leave.

2.12.12 Where the Site has been notified to the Authority as being either non-operational or closed, the Technically Competent Person shall be capable of attending the Site within one hour.

Changes in Technically competent Persons

2.12.13 Any changes in technically competent management (Person/s) and the name of any incoming person together with evidence that such person has the required technical competence shall be submitted to the Authority in writing within 5 working days of the change in management.

2.12.14 In the event of the death, dismissal, resignation, leave, or of extended sick leave of the Technically Competent Management of the Site, the Permit Holder shall immediately inform the Authority, and prove to the Authority that the Permit Holder is actively seeking a replacement.

2.13 Energy Efficiency

2.13.1 As part of the AER, the Operator shall produce a report on the energy and fuel consumed at the Permitted Installation over the previous calendar year, providing the information listed in Schedule 2 in the format specified therein.

2.13.2 The Operator shall maintain and operate the Permitted Installation so as to secure energy efficiency, in particular by:

2.13.2.1 ensuring that the appropriate operating and maintenance systems are in place;

2.13.2.2 ensuring that all installation is adequately insulated to minimise energy loss or gain;

2.13.2.3 ensuring that the type of lighting used is energy-efficient;

2.13.2.4 ensuring that all appropriate containment methods (e.g. seals) are employed and maintained to minimise energy loss;

2.13.2.5 maintaining and implementing an energy management system which shall include the monitoring of main energy flows for each generating unit, and an energy efficiency plan which targets areas for improving energy efficiency and identifies energy-saving techniques that are applicable to the activities and their associated environmental benefit, and prioritises them. The energy efficiency plan shall be updated at least once every 2 years.

2.14 Accident prevention and control

2.14.1 In the case of an accident, the Operator shall follow the Emergency Plan submitted as part of the IPPC application and updated according to the improvement programme of the installation.

2.14.2 The plan shall be reviewed at least every 2 years or as soon as practicable after an accident, whichever is the earlier, and the Authority notified of the results of the review within 2 months of its completion.

2.14.3 The Operator shall maintain and implement all health and safety measures in compliance with Act XXVII of 2000; Occupational Health and Safety Authority Chapter 424 and all relevant subsidiary legislation, in particular but not limited to implementing a risk assessment which covers the operation of the whole installation including the diesel engines and associated activities, and including the handling, storage and disposal of any material generated.

2.14.4 The Operator shall comply with the provisions of the Control of Major Accident Hazards Regulations (Legal Notice 37 of 2003 as amended).

2.14.5 The Operator and Permit Holder shall have sufficient employees trained to deal with any emergency that may arise, e.g. fire-fighting and first aid.

2.14.6 The Operator and Permit Holder is to keep the Authority updated on any major changes in operations that may impact on the health and safety of the employees.

2.14.7 The Operator and Permit Holder are to make available Health and Safety documentation freely available.

2.15 Transport

2.15.1 Independent of any Environment Management System, the Operator shall be responsible for making use of the services of an ADR (The European Agreement concerning the International Carriage of Dangerous Goods by Road) certified carrier for transport of hazardous chemicals and hazardous wastes on land.

2.15.2 The Operator shall make use of the services of a registered waste carrier for the transport of waste from the site in accordance with LN 106/2007.

2.15.3 As part of the AER, the operator shall submit the name of each carrier used in the transport of the substances specified in Conditions 2.15.1 and 2.15.2, in the format specified in Schedule 2.

2.16 Closure and Decommissioning

2.16.1 As part of the improvement programme of the installation, the operator shall submit to the Authority an outline Decommissioning Plan within the timeframe specified in Condition 1.5.1. This Decommissioning Plan shall at least include the information required by conditions 2.16.3, 2.16.5.1, 2.16.5.4 and 2.16.5.5.

2.16.2 Two years before the planned decommissioning of all or part of the site, the operator shall submit to the authority a full Decommissioning Plan which shall at least include all the information required by conditions 2.16.3 to 2.16.5.

2.16.3 The operator shall submit to the Authority a report by a qualified geologist on the likelihood of their being a significant contamination of the land on the site by any of the pollutants in Schedule 8 Should it result that the land is likely to contain environmentally significant amounts of these pollutants, this report shall contain as a minimum the measured concentrations of the substances specified in Schedule 8:

2.16.3.1 This monitoring programme shall amongst other things include the location of the points for the sampling of land, information on the sampling methods, the handling of the samples, the pre-treatment/extraction of the analytes (where applicable) and the methods used in order to analyse the samples.

2.16.3.2 Samples should be analysed to the relevant EN or EN ISO standards or equivalent.

2.16.3.3 Samples shall be managed[4] by a lab accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025:2005/Cor 1:2006 and preferably accredited for each and every analysis.

[4] sampled, handled, pre-treated/extracted or analysed.

2.16.3.4 Land monitoring shall be repeated at least every four years, and results included in the AER.

2.16.4 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the permitted activity, the operator shall to the satisfaction of the Authority, decommission, render safe or remove for disposal/recovery, any land, subsoils, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution and that may pose a public health risk.

2.16.5 The operator shall submit to the Authority for review a full Decommissioning Plan. This full Decommissioning Plan shall at least include the following information:

2.16.5.1 A detailed monitoring programme which will illustrate how the operator will measure the current levels of various pollutants in the land:

2.16.5.1.1 The list of the pollutants to be monitored for shall be as per Schedule 8.

2.16.5.1.2 The monitoring programme shall amongst other things include the location of the points for the sampling of land, the sampling methods, the handling of the samples, the pre-treatment/extraction of the analytes (where applicable) and the methods used in order to analyse the samples.

2.16.5.1.3 Samples should be analysed to the relevant EN or EN ISO standards or equivalent.

2.16.5.1.4 Samples shall be managed[4] by a lab accredited (or in the process of accreditation, as confirmed by the National Accreditation Body (NAB-Malta) or equivalent) to at least EN ISO 17025:2005/Cor 1:2006 and preferably accredited for each and every analysis.

2.16.5.2 The levels to which the site and any affected land will have to be decontaminated.

2.16.5.3 The methods which will be used in order to decontaminate the land. Such methods may also include isolation.

2.16.5.4 A waste management plan which shall include:

2.16.5.4.1 The identification and characterisation of sources, types and quantities of waste (including equipment, fuels, by-products such as ash, etc.);

2.16.5.4.2 Criteria for segregation of wastes;

2.16.5.4.3 Proposed treatment, conditioning, transport, storage and disposal/recovery methods;

2.16.5.4.4 Potential reuse/recycling of such wastes.

2.16.5.5 The identification of potential sources of emissions to the atmosphere, land and water (both seawater and groundwater) pollution which might arise from the decontamination process and corresponding mitigation measures to minimise the likelihood of such emissions.

2.16.6 The Operator shall maintain and operate the Permitted Installation so as to prevent or minimise any pollution and public health risk, including the generation of waste, on closure and decommissioning in particular by:-

2.16.6.1 Attention to the design of new plant or equipment;

2.16.6.2 The maintenance of a record of any events which have, or might have, impacted on the condition of the site along with any further investigation or remediation work carried out; and

2.16.6.3 The maintenance of a decommissioning plan to demonstrate that the installation can be decommissioned avoiding any pollution and public health risk and returning the site of operation to a satisfactory state.

2.16.7 Notwithstanding condition 2.16.4 of this Permit, the Operator shall carry out a review of the outline Decommissioning Plan at least every 4 years.

2.16.8 The Operator shall notify the Authority immediately upon a decision being taken to decommission the site.

2.16.9 A finalised version of the Site Closure Plan shall be submitted to the Authority for approval not later than 10 days after the Authority is notified of the intention to decommission the site.

2.16.10 The approved Decommissioning Plan shall be implemented within 18 months of final cessation or decommissioning of the Permitted activities or part thereof, or according to a timeframe as may be agreed with the Authority.

2.17 Multiple Operator installations

2.17.1 This is not a multi-Operator installation.

3 Records

3.1 The Operator shall ensure that all records required to be made by this Permit and any other records made by it in relation to the operation of the Permitted Installation shall:-

3.1.1 be made available for inspection by the Authority at any reasonable time;

3.1.2 be supplied to the Authority on demand and without charge and in the format requested;

3.1.3 be legible;

3.1.4 be made as soon as reasonably practicable;

3.1.5 indicate any amendments which have been made and shall include the original record wherever possible; and

3.1.6 be retained at the Permitted Installation, or other location agreed by the Authority in writing, for a minimum period of 5 years from the date when the records were made, unless otherwise agreed in writing with the Authority.

4 Reporting

4.1 All reports and written and/or oral notifications required by this Permit and notifications required by Regulation 7 of the Industrial Emissions (IPPC) Regulations shall be made and sent to the Authority using the contact details notified in writing to the Operator by the Authority.

4.2 The Operator shall submit to the Authority an AER of the previous year by not later than end of March of each year, providing the information listed in Schedule 2 of this Permit and in the format specified therein. The AER shall be forwarded to the Authority in electronic format.

4.3 The Operator shall submit to the Authority the information listed in Schedule 3 Quarterly Reporting and in the format specified therein within two months after the end of each quarter. This information shall be forwarded to the Authority in electronic format.

4.4 The Operator shall submit to the Authority the information listed in Schedule 4 Monthly Reporting and in the format specified therein within two weeks after the end of each month. This information shall be forwarded to the Authority in electronic format.

4.5 The European Pollutant Release and Transfer Register (E-PRTR) report for the installation shall be submitted as part of the Annual Environment Report, by end of March of each year, or as required by Legislation. All quantities shall be reported, even when these do not exceed the thresholds mentioned in EC Regulation 166/2006. The format used for reporting shall be that established by Legislation, notably Legal Notice 152 of 2007, as may be amended from time to time.

4.6 The Operator shall, within 6 months of receipt of written notice from the Authority, submit to the Authority a report assessing whether all appropriate preventive measures continue to be taken against pollution, in particular through the application of the best available techniques, at the installation. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the Operator, that may provide environmental improvement.

4.7 The applicant is liable to the following penalties for breaches related any condition:

- A daily fine of €200 for every breach notified, for the first seven days following notification.
- After the lapse of the first seven days the fine will be increased to €500 daily for every breach notified.

5 Notifications

This section is without prejudice to any other notification requirement in this permit.

5.1 The Operator shall notify the Authority without delay of:-

5.1.1 the detection of an emission of any substance which exceeds any limit or criterion in this Permit specified in relation to the substance;

5.1.2 the detection of any fugitive emission which has caused, is causing or may cause significant pollution and/or a public health risk unless the quantity emitted is so trivial that it would be incapable of causing significant pollution and/or a public health risk or incapable of being detected;

5.1.3 the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution and /or a public health risk; and

5.1.4 any accident which has caused, is causing or has the potential to cause significant pollution and /or a public health risk.

5.2 The Operator shall submit written confirmation to the Authority of any notification under condition 5.1, by sending:-

5.2.1 the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and

5.2.2 the more detailed information listed in Part B of Schedule 1 as soon as practicable thereafter;

5.2.3 the information listed in Schedule 2 according to the timeframe specified in Condition 4.2;

and such information shall be in accordance with that Schedule.

5.3 The Operator shall give written notification as soon as practicable prior to any of the following:-

5.3.1 permanent cessation of the operation of part or all of the Permitted Installation;

5.3.2 cessation of operation of part or all of the Permitted Installation for a period likely to exceed 1 year; and

5.3.3 resumption of the operation of part or all of the Permitted Installation after a cessation notified under condition 5.3.2.

5.4 The Operator shall notify the Authority, as soon as practicable, of any information concerning the state of the site which affects or updates that provided to the Authority as part of the Site Report submitted with the application for this Permit.

5.5 The Operator shall notify the following matters to the Authority in writing within 10 working days of their occurrence:-

5.5.1 Where the Operator is a registered company:-

5.5.1.1 any change in the Operator's trading name, registered name or registered office address;

5.5.1.2 any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary); and

5.5.1.3 any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.

5.5.2 Where the Operator is a corporate body other than a registered company:

5.5.2.1 any change in the Operator's name or address; and

5.5.2.2 any steps taken with a view to the dissolution of the Operator.

5.5.3 In any other case: -

5.5.3.1 the death of any of the named Operators (where the Operator consists of more than one named individual);

5.5.3.2 any change in the Operator's name(s) or address(es);

5.5.3.3 any steps taken with a view to the Operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case them being in a partnership, dissolving the partnership.

6. Greenhouse gas emissions permit

6.1 The conditions in this permit are without prejudice to any condition in the Greenhouse gas Emissions Permit pursuant to LN 434 of 2013 – European Union Greenhouse Gas Emissions Trading Scheme for Stationary Installations, Regulations, 2013.

7. Interpretation

7.1 In this Permit, the following expressions shall have the following meanings:-

7.1.1 *"AER"* means the Annual Environmental Report;

7.1.2 *"Application"* means the application for this Permit, together with any response to a notice served under Regulation 5 to the Industrial Emissions (IPPC) Regulations and any operational change agreed under the conditions of this Permit;

7.1.3 *"Authorised Officer"* means any officer of the Authority authorised in writing pursuant to Part X of the Environment Protection Act 2001 to exercise any of the powers specified in Part X of that Act;

7.1.4 *"Background concentration"* means such concentration of that substance as is present in:

7.1.4.1 water supplied to the site; or

7.1.4.2 where more than 50% of the water used at the site is directly abstracted from ground or surface water on site, the abstracted water; or

7.1.4.3 where the Permitted Installation uses no significant amount of supplied or abstracted water, the precipitation onto the site.

7.1.5 *"BAT"* means best available techniques, which means the most effective and advanced stage of development of activities and their methods of operation which indicates the practical suitability of particular techniques to prevent and where that is not practicable to reduce emissions and the impact on the environment as a whole. For these purposes: "available techniques" means "those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced in Malta, as long as they are reasonably accessible to the operator"; "best" means "in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole" and "techniques" "includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.";

7.1.6 "*BREF"* means the latest version of the BAT reference document published by the European Commission;

7.1.7 *"Combustion plant" or "plant"* means any technical apparatus in which fuels are oxidised in order to use the heat thus generated. Where two or more separate plants are installed in such a way that their waste gases could be discharged through a common stack, the combination formed by such plants shall be regarded as a single unit;

7.1.8 *"Composite sample"* shall refer to a sample which is taken continuously over a given period, or a sample consisting of several samples taken either continuously or discontinuously over a given period;

7.1.9 *"Direct discharge"* shall refer to the introduction into marine waters and internal coastal water of any effluent;

7.1.10 *"Diesel engine"* shall mean an internal combustion engine which operates according to the diesel cycle and uses compression ignition to burn fuel;

7.1.11 *"Effluent'"* shall refer to any discharge of water or waste water that can no longer be used as it is for the application it was originally intended;

7.1.11 *"Emission limit value"*

7.1.11.1 for discharges to air: means the permissible quantity of a substance contained in the waste gases from the combustion plant which may be discharged into the air during a given period; it shall be calculated in terms of mass per volume of the waste gases expressed in mg/Nm^3, assuming an oxygen content by volume in the waste gas of 3 % in the case of liquid fuels used in boilers and 15 % in the case of gas turbines and diesel engines;

7.1.11.2 for discharges to marine waters: shall refer to the limit value given in table 2.5.1.2 in this permit;

7.1.12 "Fuel" means any solid, liquid or gaseous combustible material used to fire the combustion plant with the exception of waste;

7.1.13 *"Fugitive emission"* means an emission to air or water (including sewer) from the Permitted Installation which is not controlled by an emission or background concentration limit under conditions 2.2 to 2.5 of this Permit;

7.1.14 *"Gas oil"* or *"diesel"* means any petroleum-derived liquid fuel falling within CN code 2710 00 67 or 2710 00 68, or any petroleum-derived liquid fuel which, by reason of its distillation limits, falls within the category of middle distillates intended for use as fuel and of which at least 85 % by volume (including losses) distils at 350°C by the ASTM D86 method;

7.1.15 *"Gas turbine"* means any rotating machine which converts thermal energy into mechanical work, consisting mainly of a compressor, a thermal device in which fuel is oxidised in order to heat the working fluid, and a turbine;

7.1.16 *"Groundwater"* means all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil;

7.1.17 *"GJ . Mg^{-1}"* means gigajoule per megagramme;

7.1.18 *"Heavy fuel oil"* means any petroleum-derived liquid fuel falling within CN code 2710 00 71 to 2710 00 78, or any petroleum-derived liquid fuel, other than gas oil which, by reason of its distillation limits, falls within the category of heavy oils intended for use as fuel and of which less than 65 % by volume (including losses) distils at 250°C by the ASTM D86 method. If the distillation cannot be determined by the ASTM D86 method, the petroleum product is likewise categorised as a heavy fuel oil;

7.1.19 *"Industrial Emissions (IPPC) Regulations"* means the Industrial Emissions (Integrated Pollution Prevention and Control) Regulations (LN 10 of 2013) and words and expressions defined in the Industrial Emissions (IPPC) Regulations shall have the same meanings when used in this Permit save to the extent they are specifically defined in this Permit. It shall include any future amendments or superseding legislation.;

7.1.20 *"Installation"* means the stationary technical unit (composed of one or more plants) where combustion of fuels (the main activity) is taking place, and any other directly associated activities on the same site which have a

technical connection with the main activity and which could have an effect on emissions and pollution;

7.1.21 *"Land"* means the upper layer of the earth's crust and shall include all the various components of the lithosphere to the rock-water and rock-air boundary, where the topmost 200 cm which is made up of inorganic and organic components and which serves as a habitat for micro- and macroorganisms is defined as soil;

7.1.22 *"Malta"* means the Island of Malta, the Island of Gozo and the other islands of the Maltese Archipelago, including the territorial waters thereof;

7.1.23 *"Marine waters"* shall refer to the waters which are outside the limit defined by coastal waters up to the limit delineated by the limit of territorial waters;

7.1.24 *"mg . Nm^{-3}"* or *"mg/Nm^{3}"* means milligramme per normal metre cubed;

7.1.25 *"Mg . $month^{-1}$"* means megagramme per month;

7.1.26 *"Monitoring"* includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys;

7.1.27 *"Permitted Installation"* means the activities and the limits to those activities described in Table 1.1.1 of this Permit;

7.1.28 *"Qualified random sample"* shall refer to a composite sample of at least five random samples taken over a maximum period of twenty-four hours at intervals of no less than two minutes and blended;

7.1.29 *"Sewer"* means sewer within the meaning of section 219(1) of the Water Industry Act 1991;

7.1.30 "*Staff*" includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors*;*

7.1.31 *"Technically Competent Person"* means a person possessing the qualifications, experience and technical competence to abide by the conditions of the Permit;

7.1.32 "*Technically Competent Management"* means the Technically Competent Person or Persons in control of the day-to-day activities authorised by the Permit and carried on at the Site;

7.1.33 "*The Authority"* or *"the Competent Authority"* or *"MEPA"* means the Malta Environment and Planning Authority or such other body or person as the Minister responsible for the environment may by order in the Gazette prescribe;

7.1.34 "*The Permit Holder"* means the Permit Holder specified in the Permit or other person to whom the Permit has been transferred in accordance with the Industrial Emissions (Integrated Pollution Prevention and Control) Regulations (LN 10 of 2013),and any statutory provisions or regulations amending or replacing them;

7.1.35 *"The Operator"* means a person who is in occupation of the Site and has responsibility for carrying out day to day activities at the Site;

7.1.36 *"The Regulations"* means the Industrial Emissions (Integrated Pollution Prevention and Control) Regulations 2013 (LN 10 of 2013), and any regulations amending or replacing them;

7.1.37 *"The Site"* means the land, structures, combustion plants and equipment to which this Permit relates;

7.1.38 *"Total nitrogen"* shall refer to the sum of total Kjeldahl nitrogen (organic N + NH_3), nitrate V (NO_3^-) – nitrogen and nitrate III (NO_2^-) – nitrogen;

7.1.39 *"TSP"* means Total Suspended Particulates;

7.1.40 "Waste gases" means gaseous discharges containing solid, liquid or gaseous emissions; their volumetric flow rates shall be expressed in cubic metres per hour at standard temperature (273 K) and pressure (101,3 kPa) after correction for the water vapour content, hereinafter referred to as (Nm^3/h);

7.1.41 *"Year"* or *"reporting year"* means calendar year ending on the 31 December;

7.1.42 *"% w/w"* means percentage weight by weight;

7.2 Where a minimum limit is set for an emission parameter such as pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

7.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means:-

7.3.1 in relation to gases from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

7.3.2 in relation to gases from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

7.4 Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the document(s) with the most recent date shall prevail to the extent of such conflict.

Schedule 1
Notification of abnormal emissions

This page outlines the information that the Operator must provide to satisfy conditions 5.1.1 and 5.1.2 of this Permit.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the Industrial Emissions (IPPC) Regulations..

Part A

Permit Number	
Name of Operator	
Location of Installation	
Location of the emission	
Time and date of the emission	

Substance(s) emitted	**Media** *(e.g. air, groundwater)*	**Best estimate of the quantity or the rate of emission** *(include units)*	**Time between which the emission took place**

Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment and any public health risk or harm which has been or may be caused by the emission.	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

Name[5]	
I.D. Card No./Passport No.	
Post	
Signature	
Date	

[5] authorised to sign on behalf of Operator

Schedule 2
Annual Environmental Report

Important note
By this submission, you confirm that you give your explicit consent for the entire contents of this Annual Environment Report to be made available on the Authority's public website.

S2.1 Introduction

IPPC Permit Number	
Reporting Year	
Name and location of Site	
Brief description of activities at the site	

S2.2 Environment Management System & Reporting

Please attach a supporting document with the following:

	Tick (✓)
1. Environmental Policy containing the installation's environmental objectives and targets;	
2. Environmental Management Programme report (for the reporting year);	
3. Environmental Management Programme proposal (for the following year);	
4. European Pollutant Release and Transfer Register Report (as per Condition 4.5)[6].	

S2.3 Process Data

S2.3.1 Annual Summary

	Units	Previous reporting year[7]	Current reporting year
Quantity of energy produced	MWh		
Total Annual Energy Consumption (from electricity and other sources)	MWh		
Energy consumption per unit product	MWh consumed/ MWh produced		
Annual water consumption	m^3		
Water consumption per unit product	m^3/MWh		
Annual quantity of waste produced	tonnes		
Waste produced per unit product	tonne waste/ MWh		

S2.3.2 Fuel consumption

	Units	Sulphur Content [8]	Consumption	
			Previous Year	Current Year
Heavy Fuel Oil	m^3			
Gas Oil	m^3			

[6] The format used for reporting shall be that published in the Government Gazette (http://www.doi.gov.mt/EN/gazetteonline/2007/07/gazts/GG%2013.7.pdf)
[7] In this Annual Environmental Report, "previous reporting year" is not applicable for the first reporting year (2012) for the diesel engines (DPS6) only
[8] Specify units (e.g. as percentage, or mg/kg)

S2.4 Monitoring Data of Emissions to Air

S2.4.1 Summary of emissions to air (concentrations)
S2.4.1.1 Emissions of Dust (TSP), Nitrogen Oxides (NO_X) and Sulphur Dioxide (SO_2)

Parameter	Emission point reference	Standard methodology used	Annual average pollutant concentration	Mean Monthly Limit Value	Total annual number of exceedances of monthly mean value after validation		48 hourly Mean Limit Value (% compliance)	Percentage of exceedances of 48 hourly mean limit value after validation	
			$mg.Nm^{-3}$	$mg.Nm^{-3}$	Previous year	Present year	$mg.Nm^{-3}$	Previous year	Present year
Total Suspended Particulates	DPS1								
Oxides of Nitrogen	DPS1								
Sulphur Dioxide	DPS1								
Total Suspended Particulates	DPS2								
Oxides of Nitrogen	DPS2								
Sulphur Dioxide	DPS2								
Total Suspended Particulates	DPS3								
Oxides of Nitrogen	DPS3								
Sulphur Dioxide	DPS3								
Total Suspended Particulates	DPS4								
Oxides of Nitrogen	DPS4								
Sulphur Dioxide	DPS4								
Total Suspended Particulates	DPS5								
Oxides of Nitrogen	DPS5								
Sulphur Dioxide	DPS5								
Total Suspended Particulates	DPS6								
Oxides of Nitrogen	DPS6								
Sulphur Dioxide	DPS6								

Additional documentation to be submitted:

	Tick (✓)
Accreditation certificate(s) of laboratory	

S2.4.1.2 Emissions of Carbon monoxide (CO)

Emission point reference	Standard methodology used	Annual average pollutant concentration	Monthly Limit Value	Total annual number of exceedances of monthly mean value after validation	
		$mg.Nm^{-3}$	$mg.Nm^{-3}$	Previous year	Present year
DPS1					
DPS2					
DPS3					
DPS4					
DPS5					
DPS6					

S2.4.1.3 Emissions of Dioxins and Furans (PCDDs and PCDFs)

Sampling last carried out in (year)	
Sampling due in (year)	

If monitoring was due in current reporting year, the following information shall be submitted:

Emission point reference	Standard methodology used	Mean Annual Limit Value	PCDD & PCDF concentration	Annual average Pollutant Concentration[1]	
				Present year	Previous report
		ng.Nm^{-3}	ng.Nm^{-3}	ng.Nm^{-3}	ng.Nm^{-3}
DPS1					

Additional documentation to be submitted:

	Tick (✓)
Accreditation certificate(s) of laboratory	

[1] All exceedances in this Annual Environmental Report are to be clearly highlighted in red.

S2.4.1.4 Emissions of Metals

Dates on which sampling was carried out:

	DPS1	DPS6 (when applicable)
1st six months:		
2nd six months:		

Emission point reference	Metals	Standard methodology used	Mean Annual Limit Value	Concentration 1st six months	Concentration 2nd six months	Annual average Pollutant Concentration	
						Present year	Previous year
			mg.Nm^{-3}	mg.Nm^{-3}	mg.Nm^{-3}	mg.Nm^{-3}	mg.Nm^{-3}
DPS1	Cadmium and thallium together						
DPS1	Arsenic, chromium cobalt, copper, manganese, nickel, lead, antimony and vanadium together						
DPS6	Cadmium and thallium together						
DPS6	Chromium cobalt, copper, manganese, lead and antimony together						
DPS6	Arsenic						
DPS6	Nickel						
DPS6	Vanadium						

Additional documentation to be submitted:

	Tick (✓)
Accreditation certificate(s) of laboratory	

S2.4.1.5 Emissions of PAHs

	Date on which sampling was carried out
DPS1	
DPS6 (when applicable)	

Emission point reference	Standard methodology used	Naphthalene	Anthracene	Phenantrene	Fluoranthene	Benzo(a) anthracene	Chrysene	Benzo(a) pyrene	Benzo(ghi) perylene	Benzo(k) fluoranthene	Indeno(1,2,3-cd)pyrene
		$mg.kg^{-1}$ dust	$mg.kg^{-1}$ dust	$mg.kg^{-1}$ dust	$mg.kg^{-1}$ dust	$mg.kg^{-1}$ dust	$mg.kg^{-1}$ dust	$mg.kg^{-1}$ dust	$mg.kg^{-1}$ dust	$mg.kg^{-1}$ dust	$mg.kg^{-1}$ dust
DPS1											
DPS6											

Emission point reference	Emission limit value	PAH (sum 10) measurements $mg.kg^{-1}$ dust	
		Present year	Previous year
DPS1			
DPS6			

Additional documentation to be submitted:

	Tick (✓)
Accreditation certificate(s) of laboratory	

S2.4.1.6 Emissions of Ammonia

Emission point reference	Standard methodology used	Mean Annual Limit Value	Annual average Pollutant Concentration ($mg.Nm^{-3}$)	
		$mg.Nm^{-3}$	Present year	Previous year
DPS6				

S2.4.2 Monthly Loads of Particulates, SO_2 and NO_X

ONE PAGE PER PLANT TO BE SUBMITTED

Operator: Enemalta Corporation Ltd.	Plant no. DPS ___	
Location: Delimara.	Heat Value of Fuel fired:	$GJ.Mg^{-1}$
Reporting year: _____		

Month	Fuel Burn During this period $Mg\ .\ month^{-1}$	Monthly SO_2 Load Mg	Monthly NO_x Load Mg	Monthly Dust Load Mg
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTAL				

Pollutant Load (Mg) = Pollutant concentration ($\mu g.Nm^{-3}$) × 1×10^{-9} × WGF ($m^3.month^{-1}$)
(WGF = waste gas flow rate).

S2.4.3 Annual Data

S2.4.3.1 Annual Load of Particulates, SO_2 and NO_X

Units	Rated Thermal Input MW_{TH}	Type	Fuel	Fuel Burn $Mg.yr^{-1}$	Heat Value $GJ.Mg^{-1}$	Annual Emissions* SO_2 $Mg.yr^{-1}$	Annual Emissions* NO_X $Mg.yr^{-1}$	Annual Emissions* dust $Mg.yr^{-1}$
Delimara 1	332	Steam Boiler	HFO					
Delimara 2	121	Gas Turbine	Gasoil					
Delimara 3	121	Gas Turbine	Gasoil					
Delimara 4	121	Gas Turbine	Gasoil					
Delimara 5	121	Gas Turbine	Gasoil					
Delimara 6	308	Diesel engines						
Total								

* Sum of the total emissions during normal operations + total emissions during start-up/shut down periods.

S2.4.3.2 Annual Load of Ni and V

ONE PAGE PER PLANT (DPS1, DPS6[i]) TO BE SUBMITTED

Operator: Enemalta Corporation Ltd.	Plant no. DPS __
Location: Delimara.	Heat Value of Fuel fired _____GJ.Mg^{-1}
Reporting year:	

Method 1: Metal content of fuel x fuel burn

Year	Fuel Burn (Mg . year^{-1})	Average Ni content (mg Ni.Mg^{-1})	Average V content (mg V.Mg^{-1})	Annual Ni Load (Mg)	Annual V Load (Mg)
Previous					
Current					

Metal Load (Mg) = metal content (mg metal .Mg^{-1}) × 1×10^{-9} × FB (Mg.year^{-1})
FB = Fuel Burn.
Metal = nickel or vanadium.

Method 2: Metal concentration in flue gas x flue gas volume

Year	Flue gas volume	Average Ni content	Average V content	Annual Ni Load (Mg)	Annual V Load (Mg)
Previous					
Current					

Additional documentation to be submitted:

	Tick (✓)
Accreditation certificate(s) of laboratory	

[i] When applicable.

S2.4.3.3 Annual Load of Ammonia

ONE PAGE TO BE SUBMITTED FOR DPS6

Operator: Enemalta Corporation Ltd. Location: Delimara. Reporting year:	Plant no. DPS __ Heat Value of Fuel fired _____GJ.Mg^{-1}

Year	Annual Ammonia Load (Mg)
Previous	
Current	

Additional documentation to be submitted:

	Tick (✓)
Accreditation certificate(s) of laboratory	

S2.4: Certificates of Analysis for physical and chemical parameters of fuels

Documentation to be submitted:

	Tick (✓)
Certificates of analysis for physical and chemical parameters of fuels for reporting year (indicate number of certificates submitted)	
Accreditation certificate(s) of laboratory	

S2.5: Wind Rose

Documentation to be submitted:

	Tick (✓)
Wind rose for the reporting year showing wind speed and direction at the site	

S2.6: Ambient Air Quality Monitoring

Sampling location	
Number of PM_{10} daily samples taken during reporting year	
Number of $PM_{2.5}$ daily samples taken during reporting year	
Number of samples analysed for arsenic, cadmium, nickel, lead and vanadium during reporting year	

	PM_{10} (ug/m^3)	**$PM_{2.5}$ (ug/m^3)**
Annual limit value (in accordance with LN 478 of 2010)	40	25
Annual average measurement		
Highest recorded measurement during reporting year		
Daily limit value (in accordance with LN 478 of 2010)	50	n/a
Number of exceedances of daily limit value		n/a

	Monitoring result *(specify units)*				
Sampling dates	**Arsenic**	**Cadmium**	**Nickel**	**Lead**	**Vanadium**
Average					

Note: In the table above, underline values which exceed the target/limit values specified in LN 478 of 2010.

Name of laboratory carrying out sampling and measurement	

Additional documentation to be submitted:

	Tick (✓)
Accreditation certificate(s) of laboratory	

S2.7 Emissions to Marine Water

S2.7.1 Emissions to Marine Water: Physical and Chemical Monitoring

ONE REPORT PER OUTLET TO BE SUBMITTED

Name of outlet and reference number: _____

No.	Parameter	Limit (annual average)	Standard methodology used	Concentration (annual average)[1]			Total annual mass emissions		
				Units	Previous year	Present year	Units	Previous year	Present year
1	Flow			-	-	-			
2	pH								
3	Temperature								
4	Biological oxygen demand (BOD5)								
5	Total Nitrogen								
6	Phosphorous compounds as total phosphorous, as per EN ISO 15681								
8	Chlorine dioxide and oxidants (given as chlorine)								
9	Arsenic								
10	Cadmium								
11	Chromium (Total)								
12	Copper								
13	Lead								
14	Mercury								
15	Nickel								
16	Tin								
17	Vanadium								
18	Zinc								
19	Total petroleum hydrocarbons								

[1] Exceedances are to be clearly highlighted in red.

No.	Parameter	Limit (annual average)	Standard methodology used	Concentration (annual average)[1]			Total annual mass emissions		
				Units	Previous year	Present year	Units	Previous year	Present year
20	Tributyl tin compounds (tributyltin cation; CAS number 36643-28-4)								
21	Total Suspended Solids								
22	Benzene (CAS number 71-43-2)								
23	PAHs as follows:								
	Benzo(a)pyrene								
	Benzo(b)fluor-anthene, Benzo(k)fluor-anthene								
	Benzo(g,h,i)-perylene, Indeno(1,2,3-cd)-pyrene								
24	C10-C13 chloroalkanes (CAS number 85535-84-8)								
25	Polychlorinated biphenyls (CAS number 1336-36-3)								

Name of laboratory where tests in this section have been carried out	
Is this laboratory accredited (certified) for the above tests?	Yes ☐ No ☐

Additional documentation to be submitted:

	Tick (✓)
Accreditation certificate(s) of laboratory	

Were there any exceedances in the present reporting year?	Yes ☐ No ☐

If yes, one of the following is also to be submitted:

	Tick (✓)
Action programme aimed at achieving emission limits	
Document designating a mixing zone following the procedures specified in Regulation 8(b) (Mixing Zones) of Legal Notice 24 of 2011	

S2.7.2 Emissions to Marine Water: Ecological Monitoring

Date on which survey was carried out:	
Did the survey reveal a decline in the conservation status of any of the habitat types and species in the area, especially those listed in the Schedules LN 311/06?	Yes ☐ No ☐

Additional documentation to be submitted:

	Tick (✓)
Ecological survey for reporting year	
Proposals for mitigation measures (only required if the survey revealed a decline in the conservation status)	

S2.8 Noise monitoring[i]

Monitoring point [ii]	Date sampled	Time sampled	Operating conditions	Noise measurement	Units	Other comments (if any)

Additional documentation to be submitted:

	Tick (✓)
Map showing monitoring points	
Detailed noise report [iii]	

[i] Noise monitoring shall be carried out according to BS 4142:1997.
[ii] Monitoring points should be labelled using a unique code, and should be suitably sited. A corresponding labelled map showing the location of each monitoring points shall be submitted.
[iii] The detailed noise report should include information about the various monitoring points chosen, an analysis of the results and suggestions for improvement (if applicable).

S2.9 Off-site transfers of waste

Date of transfer	EWC Code[i]	Description of waste	Quantity of waste (in kg)	Treatment applied before transfer	Mode of transport	Names of agent & transporter of waste	Ultimate destination (address) of waste	Consignment note number[ii]	Name of person responsible for ultimate disposal/recovery	Disposal/ Recovery	Details of Recovery (if applicable)

[i] European Waste Catalogue Code (Reference: Decision 2000/532/EC)
[ii] For hazardous waste only. If waste is not hazardous, please write "n/a".

S2.10 Testing of bunds, pipes, pumps, valves, flanges, over-ground pipes and tanks

Number of bunds on site for tanks/containers ≤25 m^3 requiring testing in accordance with condition 2.5.4.3	
Number of oil interceptors on site	
Number of tanks on site	
Date of last test for bunds for tanks/containers ≤25 m^3	
Testing for bunds for tanks/containers <25 m^3 due on (date)	
Number of existing fuel tanks on site	
Date of last ultrasonic testing of shell thickness for above tanks	
Ultrasonic testing of shell thickness for above tanks due on (date)	
Number of fuel tanks on site for DPS6	
Date of last ultrasonic testing of shell thickness (DPS6)	
Ultrasonic testing of shell thickness (DPS6) due on (date)	
Date of last test for pipes, pumps, valves and flanges for fuel delivery from delivery ship to tank farm	
Testing of pipes, pumps, valves and flanges for fuel delivery from delivery ship to tank farm due on (date)	
Date of last test for other flanges, valves and over-ground pipes on site	
Testing of other flanges, valves and over-ground pipes on site due on (date)	
Date of last test for oil interceptors	
Testing for oil interceptors due on (date)	

Additional documentation to be submitted if test was carried out during previous reporting year:

	Tick (✓)
Inspection report and certification by approved auditor for bunds for tanks/containers ≤25 m^3 on site	
Inspection report and certification by approved auditor for pipes, pumps, valves and flanges for fuel delivery from delivery ship to tank farm	
Inspection report and certification by approved auditor for other flanges, valves and over-ground pipes on site	
Inspection report and certification by approved auditor for oil interceptors	
Ultrasonic test report of tank shell thickness	

Bunds for tanks/containers >25 m^3:

Number of bunds on site for tanks >25 m^3	
Number of visual inspections carried out during reporting year on each bund	
Total number of faults identified during reporting year	
Total number of faults rectified during reporting year	

Additional documentation to be submitted for bunds for tanks/containers >25 m^3:

	Tick (✓)
Bund certification by warranted civil engineer	
Summary report by warranted engineer on the visual inspections undertaken during the reporting year (including reports on faults and remedial actions taken)	

S2.11 Incidents and Complaints

S2.11.1 Non-Compliance Incidents during Reporting Year

Date of incident	Brief description of Incident	Cause	Corrective action

Total number of non-compliance incidents for previous year:
Total number of non-compliance incidents for current reporting year:

S2.11.2 Complaints made by the public

Date of complaint	Description of complaint	Actions taken

Total number of complaints for previous year:
Total number of complaints for current reporting year:

S2.12 Transport

Name of ADR certified carrier used during reporting year	Material(s) transported

Name of registered waste carrier used during reporting year	Waste type(s) transported

S2.13 Land monitoring

Land monitoring carried out in (year):
Land monitoring due in (year)

If land monitoring was due in current reporting year:

Sampling date/s	

Additional documentation to be submitted:

	Tick (✓)
Land monitoring programme	
Land monitoring results	
Accreditation certificates of laboratory	

Schedule 3
Quarterly Reporting

Important note
By this submission, you confirm that you give your explicit consent for the entire contents of this Quarterly Report to be made available on the Authority's public website.

Period covered by this report: _____

S3.1 Waste

Waste removed from site (EWC code & description)	Quantity	Units

S3.2 Air emissions

S3.2.1 Quarterly reporting of SO_2 and NO_x loads

S3.2.2.1 SO_2 load

Period	Projected load [i]	Actual load	Revised projected load
	tonnes	tonnes	tonnes
January – March			
April – June			
July – September			
October – December			
Total annual load			

S3.2.2.2 NO_x load

Period	Projected load [i]	Actual load	Revised projected load
	tonnes	tonnes	tonnes
January – March			
April – June			
July – September			
October – December			
Total annual load			

[i] As submitted to the Authority in September of previous year

Schedule 4
Monthly reporting

Important note
By this submission, you confirm that you give your explicit consent for the entire contents of this Monthly Report to be made available on the Authority's public website.

S4.1 Daily Statistical Analysis of Continuous Monitoring

S4.1.1 Data for Particulates

ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT (DPS1-6)

Operator: Enemalta Corporation Ltd. Emission Limit Value: ____ mg . Nm^{-3}
Location: Delimara
Date: ____/____/_____ Plant no.: _____

Time	Validated Hourly average (mg . Nm^{-3})	Validity of Data*
0000 hrs		
0100 hrs		
0200 hrs		
0300 hrs		
0400 hrs		
0500 hrs		
0600 hrs		
0700 hrs		
0800 hrs		
0900 hrs		
1000 hrs		
1100 hrs		
1200 hrs		
1300 hrs		
1400 hrs		
1500 hrs		
1600 hrs		
1700 hrs		
1800 hrs		
1900 hrs		
2000 hrs		
2100 hrs		
2200 hrs		
2300 hrs		

Validated mean daily concentration of particulates	**mg . Nm^{-3}**

Notes:
(a) The validated hourly average is calculated by subtracting a factor determined according to the procedure established by the relevant standard referred to in this permit and which shall in no case exceed 30% from the hourly average.
(b) Validated mean daily concentration average is calculated from the validated hourly averages
**In this column mark valid data entries with a ✓ and invalid data entries with a ×.*

S4.1.2 Data for Sulphur Dioxide

ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT (DPS1-6)

Operator: Enemalta Corporation Ltd. Emission Limit Value: _____ mg . Nm^{-3}
Location: Delimara
Date: / / Plant no.:

Time	Validated Hourly average (mg . Nm^{-3})	Validity of Data*
0000 hrs		
0100 hrs		
0200 hrs		
0300 hrs		
0400 hrs		
0500 hrs		
0600 hrs		
0700 hrs		
0800 hrs		
0900 hrs		
1000 hrs		
1100 hrs		
1200 hrs		
1300 hrs		
1400 hrs		
1500 hrs		
1600 hrs		
1700 hrs		
1800 hrs		
1900 hrs		
2000 hrs		
2100 hrs		
2200 hrs		
2300 hrs		

Validated mean daily concentration of sulphur dioxide	**mg . Nm^{-3}**

Notes:

(a) The validated hourly average is calculated by subtracting a factor determined according to the procedure established by the relevant standard referred to in this permit and which shall in no case exceed 20% from the hourly average.

(b) Validated mean daily concentration average is calculated from the validated hourly averages.

**In this column mark valid data entries with a ✓ and invalid data entries with a ×.*

S4.1.3 Data for Nitrogen Oxides

ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT (DPS1-6)

Operator: Enemalta Corporation Ltd. Emission Limit Value: mg . Nm^{-3}
Location: Delimara
Date: ____/____/_____ Plant no.: _____

Time	Validated Hourly average (mg . Nm^{-3})	Validity of Data*
0000 hrs		
0100 hrs		
0200 hrs		
0300 hrs		
0400 hrs		
0500 hrs		
0600 hrs		
0700 hrs		
0800 hrs		
0900 hrs		
1000 hrs		
1100 hrs		
1200 hrs		
1300 hrs		
1400 hrs		
1500 hrs		
1600 hrs		
1700 hrs		
1800 hrs		
1900 hrs		
2000 hrs		
2100 hrs		
2200 hrs		
2300 hrs		

Validated mean daily concentration of nitrogen oxides	**mg . Nm^{-3}**

Note:

(a) The validated hourly average is calculated by subtracting a factor determined according to the procedure established by the relevant standard referred to in this permit and which shall in no case exceed 20% from the hourly average.

(b) Validated mean daily concentration average is calculated from the validated hourly averages

**In this column mark valid data entries with a ✓ and invalid data entries with a ×.*

S4.1.4 Data for Carbon Monoxide

ONE PAGE PER DAY TO BE SUBMITTED FOR EACH PLANT (DPS1-6)

Operator: Enemalta Corporation Ltd.	Emission Limit Value: _____ mg . Nm^{-3}
Location: Delimara.	
Date: / /	Plant no.:

Time	Validated Hourly average (mg . Nm^{-3})	Validity of Data*
0000 hrs		
0100 hrs		
0200 hrs		
0300 hrs		
0400 hrs		
0500 hrs		
0600 hrs		
0700 hrs		
0800 hrs		
0900 hrs		
1000 hrs		
1100 hrs		
1200 hrs		
1300 hrs		
1400 hrs		
1500 hrs		
1600 hrs		
1700 hrs		
1800 hrs		
1900 hrs		
2000 hrs		
2100 hrs		
2200 hrs		
2300 hrs		

Validated mean daily concentration of carbon monoxide	**mg . Nm^{-3}**

Note:

(a) The validated hourly average is calculated by subtracting a factor determined according to the procedure established by the relevant standard referred to in this permit and which shall in no case exceed 10% from the hourly average.

(b) Validated mean daily concentration average is calculated from the validated hourly averages.

**In this column mark valid data entries with a ✓ and invalid data entries with a ×.*

S4.2 Diurnal Statistical Analysis of Continuous Monitoring

S4.2.1 Diurnal Data for Particulates

ONE PAGE PER MONTH TO BE SUBMITTED FOR EACH PLANT (DPS1-6)

Operator: Enemalta Corporation Ltd. Location: Delimara.	Emission Limit Value (if applicable): mg . Nm^{-3} (97% of all mean validated 48 hourly values must not exceed _____ mg . Nm^{-3}) Plant no.: _____

Period	48 Hourly average (validated) (mg . Nm^{-3})
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____hrs	
Starts on: / / at hrs Ends on: / / at hrs	

Note:
In the table above underline 48 hourly averages which exceed the diurnal emission limit value.

S4.2.2 Diurnal Data for Sulphur Dioxide

ONE PAGE PER MONTH TO BE SUBMITTED FOR EACH PLANT (DPS1-6)

Operator: Enemalta Corporation Ltd. Location: Delimara.	Emission Limit Value (if applicable): _____ mg . Nm^{-3} 97% of all mean validated 48 hourly values must not exceed mg . Nm^{-3} Plant no.: _____

Period	48 Hourly average (validated) (mg . Nm^{-3})
Starts on: ____/____/____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: ____/____/____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at _____hrs Ends on: ____/____/____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: ____/____/____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at _____hrs Ends on: ____/____/____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at _____hrs Ends on: / / at hrs	
Starts on: ____/____/____ at _____hrs Ends on: ____/____/____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at _____hrs Ends on: ____/____/____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at _____hrs Ends on: / / at hrs	

Note:
In the table above underline 48 hourly averages which exceed the diurnal emission limit value.

S4.2.3 Diurnal Data for Nitrogen Oxides

ONE PAGE PER MONTH TO BE SUBMITTED FOR EACH PLANT (DPS1-6)

Operator: Enemalta Corporation Ltd. Location: Delimara.	Emission Limit Value: mg . Nm^{-3} 95% of all mean validated 48 hourly values must not exceed _____ mg . Nm^{-3} Plant no.: _____

Period	48 Hourly average (validated) (mg . Nm^{-3})
Starts on: ____/____/____ at ____hrs Ends on: / / at hrs	
Starts on: ____/____/____ at ____hrs Ends on: ____/____/____ at ____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at ____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: ____/____/____ at ____ hrs	
Starts on: ____/____/____ at ____hrs Ends on: / / at hrs	
Starts on: ____/____/____ at ____hrs Ends on: ____/____/____ at ____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at ____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: ____/____/____ at ____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at ____hrs Ends on: ____/____/____ at ____ hrs	
Starts on: / / at hrs Ends on: ____/____/____ at ____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/____/____ at ____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: ____/____/____ at ____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	

Note

In the table above underline 48 hourly averages which exceed the diurnal emission limit value.

S4.3 Daily Statistical Analysis of Continuous Monitoring

S4.3.1 Daily Data for Carbon Monoxide

TWO PAGES PER MONTH TO BE SUBMITTED FOR EACH PLANT (DPS1-6)

Operator: Enemalta Corporation Ltd. Location: Delimara.	Emission Limit Value: _____ mg . Nm^{-3} 97% of all mean validated daily values must not exceed _____ mg . Nm^{-3} Plant no.: _____

Period	24 Hourly average (validated) (mg . Nm^{-3})
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: _____/_____/_____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	

Period	24 Hourly average (validated) (mg . Nm^{-3})
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/_____/_____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/_____/_____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: ____/_____/_____ at _____hrs Ends on: / / at hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: / / at hrs	
Starts on: ____/_____/_____ at _____hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: / / at hrs Ends on: _____/_____/_____ at _____ hrs	
Starts on: ____/_____/_____ at _____hrs Ends on: / / at hrs	

Note:
In the table above underline daily averages which exceed the daily emission limit values.

S4.4 Monthly Statistical Analysis of Continuous Monitoring

S4.4.1 Monthly Concentration Data for Particulates, SO_2, NO_X and CO

ONE PAGE PER MONTH TO BE SUBMITTED FOR EACH PLANT

Reporting year	
Month	
Plant	

	Particulates	SO_2	NO_x	CO
Monthly average concentration for the period (mg . Nm^{-3})				
No of exceedances of 48-hour limit in period				-
Highest individual 48-hour average in period (mg . Nm^{-3})				-
Mean 48-hourly average, in period (mg . Nm^{-3})				-
No of exceedances of 24 hr limit in period	-	-	-	
Highest individual 24 hr average in period (mg . Nm^{-3})				
Mean daily average, in period (mg . Nm^{-3})				
Highest individual 1 hr average in period (mg . Nm^{-3})				
Mean 1 hr average in period (mg . Nm^{-3})				
Percentage of boiler operating time that continuous monitors available during reporting period				

S4.5 Ambient Air Quality Monitoring

Sampling location	

Date	PM_{10} (ug/m^3)	$PM_{2.5}$ (ug/m^3)
Average during reporting period		
Average during calendar year (to date)		
Number of exceedances of daily limit value registered during calendar year (to date)		n/a

Note:
In the table above underline measurements which exceed the daily limit value of 50 μg/m^3 for PM_{10}, in accordance with LN 478 of 2010.

Name of laboratory carrying out sampling and measurement	

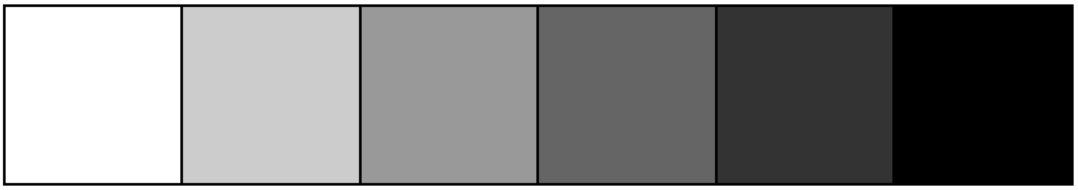
Additional documentation to be submitted (if not identical to the submission in the previous month):

	Tick (✓)
Accreditation certificate(s) of laboratory	

Schedule 5
Ringelmann Chart

The Ringelmann scale is made up of six fields, four of which are shades of grey in between white and black; the percentage of black in each shade is shown below:

Shade 1	20%
Shade 2	40%
Shade 3	60%
Shade 4	80%



White | Shade 1 | Shade 2 | Shade 3 | Shade 4 | Shade 5

Schedule 6
Equivalence Factors

The concentrations of the following dioxins and furans determined in the waste gas shall be multiplied by the given equivalence factors and summed up in order to assess compliance with emission limit values for these substances.

Substance	Equivalence factor
2,3,7,8-Tetrachlordibenzodioxin (TCDD)	1
1,2,3,7,8-Pentachlordibenzodioxin (PeCDD)	0.5
1,2,3,4,7,8-Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,7,8,9-Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,6,7,8-Hexachlordibenzodioxin (HxCDD)	0.1
1,2,3,4,6,7,8-Heptachlordibenzodioxin (HpCDD)	0.01
Octachlordibenzodioxin (OCDD)	0.001
2,3,7,8-Tetrachlordibenzofuran (TCDF)	0.1
2,3,4,7,8-Pentachlordibenzofuran (PeCDF)	0.5
1,2,3,7,8-Pentachlordibenzofuran (PeCDF)	0.05
1,2,3,4,7,8-Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,7,8,9-Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,6,7,8-Hexachlordibenzofuran (HxCDF)	0.1
2,3,4,6,7,8-Hexachlordibenzofuran (HxCDF)	0.1
1,2,3,4,6,7,8-Heptachlordibenzofuran (HpCDF)	0.01
1,2,3,4,7,8,9-Heptachlordibenzofuran (HpCDF)	0.01
Octachlordibenzofuran (OCDF)	0.001

Schedule 7

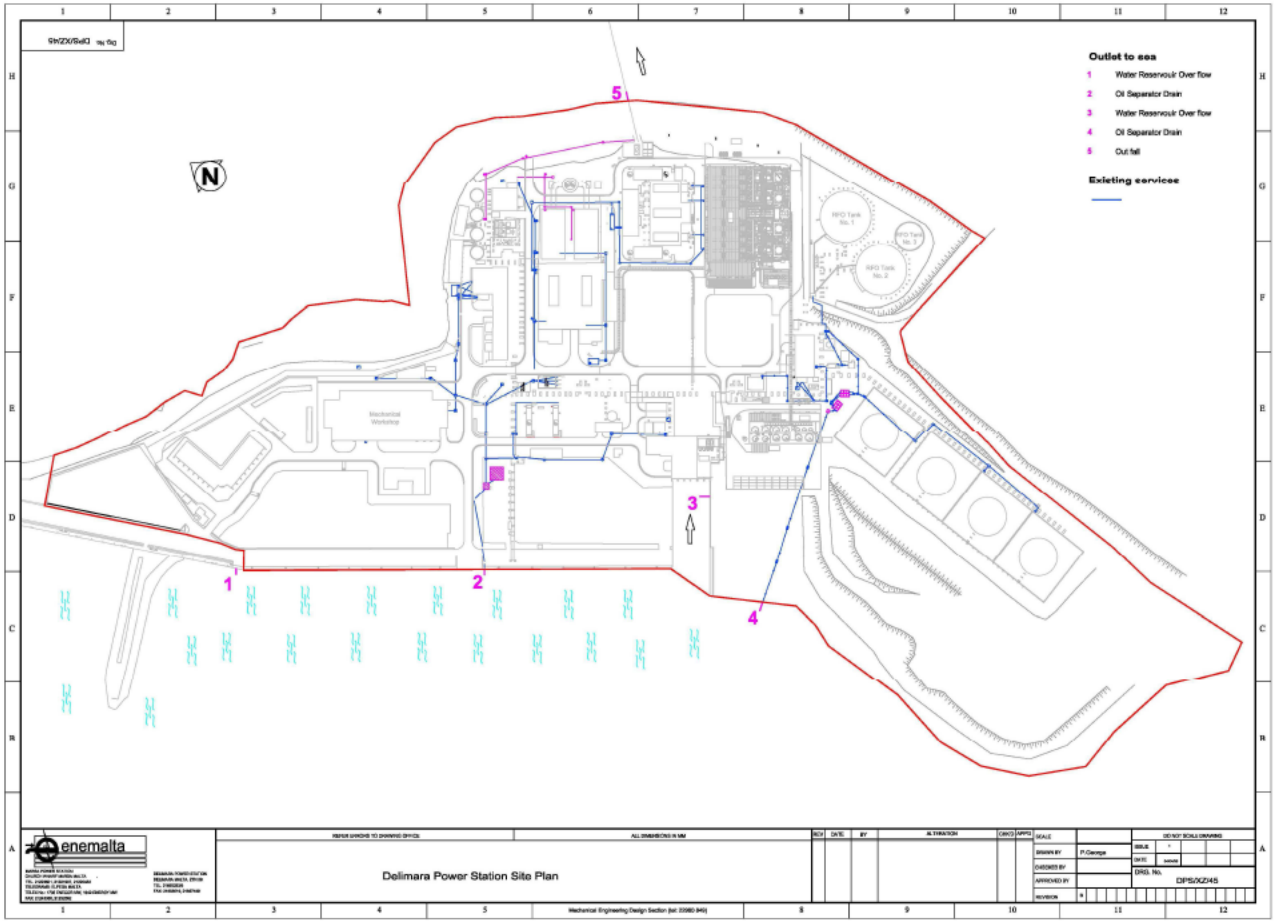
List of Priority Substances and Certain Other Pollutants in the field of Water Quality

Alachlor	Hexachloro-cyclohexane
Anthracene	Isoproturon
Atrazine	Naphtalene
Brominated diphenylether	Nonylphenol
Carbon tetrachloride	Octylphenol
Chlorpyriphos	Pentachloro-benzene
Chlorfenvinphos	Pentachloro-phenol
Aldrin	Simazine
Dieldrin	Tetrachloroeythlene
Endrin	Trichloroethylene
Isodrin	Trichloro-benzenes
DDT	Trichloro-methane
1,2-Dichloroethane	Trifluralin
Dicholoromethane	
Di(2-ethylhexyl)-phthalate	
Diuron	
Endosulfan	
Fluoranthene	
Hexachloro-benzene	
Hexachloro-butadiene	

Schedule 8
List of pollutants to be measured in land

Pollutant
Metals
Mercury
Cadmium
Lead
Copper
Zinc
Arsenic
Chromium
Selenium
Nickel
Vanadium
Cobalt
Thallium
Manganese
Antimony
Inorganic compounds
Asbestos fibres
Alkanes
Straight-chain alkanes from C_{10} to C_{70}
Cycloalkanes
Aromatic compounds
Benzene
Ethyl benzene
Toluene
Xylene
Alkylbenzenes
Polycyclic aromatic hydrocarbons (PAHs)
PAH (sum 10)
Naphthalene
Anthracene
Phenatrene
Flouranthene
Benzo(a)anthracene
Chrysene
Benzo(a)pyrene
Benzo(ghi)perylene
Benzo(k)fluoranthene
Indeno(1,2,3-cd)pyrene
Other contaminants
Mineral oil

Schedule 9
Site Plan



END OF PERMIT